

U S Army USACE
of Engineers
Huntington District

Public Notice

In reply refer to Public Notice No. 2004000681 Issuance Date: April 5, 2005

Stream: Beaver Creek

Closing Date: May 4 , 2005

Please address all comments and inquiries to:

U.S. Army USACE of Engineers, Huntington District

ATTN: CELRH-OR-F Public Notice No. (*reference above*)

502 Eighth Street

Huntington, West Virginia 25701-2070

Phone: (304) 399-5710

PUBLIC NOTICE: The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

REGULATORY PROGRAM: Since its early history, the U.S. Army Corps of Engineers (Corps) has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the Corps Regulatory Program.

SECTION 10: The Corps is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate all work or structures in or affecting the course, condition or capacity of navigable waters of the United States (U.S.). The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

SECTION 404: The Corps is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the discharge of dredged and fill material into all waters of the United States, including wetlands. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

TO WHOM IT MAY CONCERN: The following application has been submitted for a Department of the Army Permit under the provisions of Section 404 of the Clean Water Act. This notice serves as the Corps of Engineers' request to the Kentucky Division of Water and the Virginia Division of Environmental Quality to act on Section 401 Water Quality Certification for the following application.

APPLICANT: Kentucky Transportation Cabinet
Department of Highways
State Office Building, 10th Floor
Frankfort, Kentucky 40622

LOCATION: The project is located in Beaver Creek, Russell Fork, Stonecoal Fork, Mud Lick Creek, House Log Fork, Wolfpen Branch, School House Branch, Grassy Creek and their unnamed tributaries, near Beaver Creek Bottom, Pike County Kentucky to Buchanan and Dickenson County Line in Virginia.

DESCRIPTION: The portion of the project located in Kentucky, would involve the discharge of dredged or fill material into waters of the United States in conjunction with the reconstruction of US-460. The project would include the placement of approximately 19 culverts, three bridges and the construction of four waste sites. The culverts would impact 5,018 linear feet of ephemeral streams and 1,813 linear feet of intermittent streams. Stream fills and relocations would impact 347 linear feet of perennial, 7,066 linear feet of intermittent and 3,128 linear feet of ephemeral stream. The four waste sites would cover 14,265 feet of intermittent and 4,998 linear feet of ephemeral stream. Detailed descriptions of proposed impacts are listed in Attachment A.

In order to compensate for adverse impact to waters of the U. S. the applicant has proposed to pay \$5,581,252.34 as an in-lieu fee contribution to the Kentucky Department of Fish and Wildlife Stream Restoration Fund. This payment amount was calculated based on an assessment of project impacts in accordance with the Eastern Kentucky Stream Protocol. The applicant has indicated that upon or near project completion, on-site mitigation opportunities may become available based on the final location and configuration of proposed spoil sites. In the event such mitigation opportunities are identified, the applicant would re-evaluate the overall mitigation requirements and would suggest the in-lieu fee payment be reduced to reflect the outstanding mitigation debt not offset by on-site compensation. Because the details associated with the potential for on-site mitigation projects are not yet available, the applicant has proposed to defer the in-lieu fee contribution until the end of project construction.

The proposed project extends into Virginia. The Norfolk and Huntington Corps Districts have coordinated and the Huntington District has assumed jurisdiction for this section of the project. The portion of the project located in Virginia, would involve the discharge of dredged or fill material into 729 linear feet of ephemeral stream and 839 linear feet of perennial stream. Approximately 0.30 acre of waters of the U.S. would be impacted by the project in Virginia. Plans of the proposed work are attached to this notice. A compensatory mitigation plan is currently being developed to offset adverse impacts to waters of the U.S in Virginia.

WATER QUALITY CERTIFICATION: A Section 401 Water Quality Certification is required for this project. It is the applicant's responsibility to obtain certifications from the Kentucky Division of Water and the Virginia Division of Environmental Quality.

HISTORIC AND CULTURAL RESOURCES: The National Register of Historic Places has been consulted and it has been determined there are no properties currently listed on the register in the area affected by the proposed project. A copy of this public notice will be sent to the State Historic Preservation Offices for their review. Comments concerning archeological sensitivity of a project area should be based upon collected data.

ENDANGERED AND THREATENED SPECIES: The Huntington District has consulted the most recently available information and has determined the project is not likely to affect the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat of such species which has been determined to be critical. This public notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

PUBLIC INTEREST REVIEW AND COMMENT: This application will be reviewed in accordance with 33 CFR 320-331, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; of those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act.

Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination. A permit will be granted unless its issuance is found to be contrary to the public interest.


SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing fact upon which a decision by the District Engineer may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any person who has an interest that may be

adversely affected by the issuance of a permit may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to

U.S. Army Corps of Engineers
ATTN: CELRH-OR-F Public Notice No. 200400681
502 Eighth Street
Huntington, West Virginia 25701-2070

If you have any questions concerning this public notice, please call Mrs. Sarah M. Workman of the South Regulatory Section at 304-399-5710.


Ginger Mullins, Chief
Regulatory Branch

(K, VA)

SUMMARY OF SECTION 404 IMPACTS

US 460, Sections 7, 8, and 9V Pike County, Kentucky

The *Eastern Kentucky Stream Assessment Protocol* was used to assess stream impacts that will result from the project. The following is a summary of stream impacts for Sections 7 and 8 of the proposed project. A footprint of Section 9V showing the proposed beginning and end of the project is included. The design of Section 9V is in the preliminary stages and performing a detailed stream assessment to determine stream impacts is not possible.

The opportunity for on-site mitigation for this project is very limited due mainly to the very steep terrain throughout the project. Therefore, mitigation for the impacts on Sections 7 and 8 will be in the form of an in-lieu fee payment to the Kentucky Division of Fish and Wildlife Resources. The Stream Assessment Report for the project includes calculations of the proposed in-lieu fee based on the *In-Lieu Fee Compensatory Mitigation Calculator (version 2002.8)*.

Bridges and Culverts:

1. KY 80, Sta. 59+00 – Construct a 9 ft. (2.7 m) by 4 ft. (1.2 m) RCBC, 61 ft. (18.6 m) in length with 20 ft. (6.1 m) of inlet channel improvements and 18 ft. (5.5 m) of outlet channel improvements. (**Sheet 1 and 2**). The watershed is 132.7 acres (53.7 ha). This impacts 221 ft. (67.4 m) of existing stream. Field investigations indicate this is an intermittent stream and is an unnamed tributary of Russell Fork. Impact to waters of the U.S. is 0.02 acres (0.008 ha).
2. KY 80, Sta. 77+50 – Construct a 10 ft. (3.0 m) by 4 ft. (1.2 m) RCBC, 73 ft. (22.2 m) in length with 10 ft. (3.0 m) of inlet channel improvements and 145 ft. (44.2 m) of outlet channel improvements. (**Sheet 3 and 4**). The watershed is 106.4 acres (43 ha). This impacts 470 ft. (143.3 m) of existing stream. Field investigations indicate this is an ephemeral stream and is an unnamed tributary of Russell Fork. Impact to waters of the U.S. is 0.05 acres (0.02 ha).
3. Ramp 1, Sta. 205+25 – Construct a 8 ft. (2.4 m) by 4 ft. (1.2 m) RCBC, 76 ft. (23.2 m) in length with 30 ft. (9.1 m) of inlet channel improvements and 20 ft. (6.1 m) of outlet channel improvements. (**Sheet 3 and 5**). The watershed is 100.5 acres (40.7 ha). This impacts 229 ft. (69.8 m) of existing stream. Field investigations indicate this is ephemeral stream and is an unnamed tributary of Russell Fork. Impact to waters of the U.S. is 0.02 acres (0.009 ha).
4. KY 80, Sta. 88+35 to Sta. 89+20 – Construct a single-span bridge, 85 ft. (25.9 m) in length over Beaver Creek (**Sheet 6 and 7**). The drainage area at the bridge is 6.23 mi² (1614 ha). No channel work is proposed on the stream. There is no fill below ordinary high water and no permanent impacts to water are expected. If a temporary crossing is needed during construction, it will be the responsibility of the contractor to apply for approval.
5. Ramp 2, Sta. 310+72.50 to Sta. 314+50 – Construct a three-span bridge, 377.5 ft. (115 m) in length with two piers over Beaver Creek (**Sheet 8 and 9**). The drainage area at the bridge is 6.12 mi² (1585 ha). No channel work is proposed on the stream. Pier 1 is in the floodplain but not within the floodway and neither piers are below normal pool height. There is no fill below ordinary high water and no permanent impacts to water are expected. If a temporary crossing is needed during construction, it will be the responsibility of the contractor to apply for approval.
6. Sta. 769+00 – Construct a 36 in. (900 mm) pipe culvert 148 ft. (45.1 m) in length with 75 ft. (22.9 m) of outlet channel improvements (**Sheet 10 and 11**). This impacts 407 ft. (124.1 m) of existing stream and has a watershed of 11.13 acres (4.5 ha). Field investigations indicate this drainage is ephemeral in nature and is an unnamed tributary of Beaver Creek. The impact to waters of the U.S. is 0.015 acres (0.006 ha).

7. Sta. 788+50 – Construct a 36 in. (900 mm) pipe culvert 153 ft. (46.6 m) in length with 50 ft. (15.2 m) of outlet channel improvements (**Sheet 12 and 13**). This impacts 300 ft. (91.4 m) of existing stream and has a watershed of 12.2 acres (4.9 ha). Field investigations indicate this drainage is ephemeral in nature and is an unnamed tributary of Beaver Creek. The impact to waters U.S. is 0.014 acres (0.006 ha).
8. Sta. 807+33 – Construct a 8 ft. (2.4 m) by 4 ft. (1.2 m) RCBC, 200 ft. (61 m) in length with 154 ft. (46.9 m) of inlet channel improvements and 125 ft. (38.1 m) of outlet channel improvements (**Sheet 14 and 15**). The watershed is 95.3 acres (38.6 ha). This impacts 587 ft. (178.9 m) of existing stream. Field investigations indicate this is an intermittent stream and is an unnamed tributary of Beaver Creek. Impact to waters of the U.S. is 0.09 acres (0.04 ha).
9. Sta. 820+20 – Construct a 10 ft. (3.0 m) by 4 ft. (1.2 m) RCBC, 109 ft. (33.2 m) in length with 167 ft. (50.9 m) of inlet channel improvements and 170 ft. (51.8 m) of outlet channel improvements (**Sheet 16, 17, and 18**). The watershed is 148.9 acres (60.3 ha). This impacts 153 ft. (46.6 m) of existing stream. Field investigations indicate this is an intermittent stream and is an unnamed tributary of Beaver Creek. Impact to waters of the U.S. is 0.1 acres (0.04 ha).
10. Sta. 820+84.44, KY 1373 – Construct a 10 ft. (3.0 m) by 4 ft. (1.2 m) RCBC, 37 ft. (11.3 m) in length with 170 ft. (51.8 m) of inlet channel improvements and 74 ft. (22.6 m) of outlet channel improvements (**Sheet 16 and 19**). The inlet channel improvements are also the outlet channel improvements at Sta. 820+20. The watershed is 169.8 acres (68.7 ha). This impacts 153 ft. (46.6 m) of existing stream. Field investigations indicate this is an intermittent stream and is an unnamed tributary of Beaver Creek. Impact to waters of the U.S. is 0.06 acres (0.03 ha).
11. Sta. 49+00 to 52+25 (Beaver Creek Channel Change Stations) – Relocate 347 ft. (106 m) of Beaver Creek, which is a perennial stream (**Sheet 20**). The proposed channel will be 325 ft. (99 m) in length and impact to waters of the U.S. is 0.10 acres (0.04 ha).
12. Sta. 834+86 to 845+76 – Construct a ten-span bridge, 1090 ft (332 m) in length with nine piers that span Beaver Creek for traffic flowing eastbound on US 460 (**Sheet 20, 21, and 22**). The drainage area at the bridge is 4.82 mi² (1,248 ha). During construction 347 ft. (106 m) of existing Beaver Creek will be realigned. The relocation of Beaver Creek will have some negative short-term affects such as increased sediment during construction and possible disruption of normal flow. However, no disruptive, long-term affects on aquatic habitat are anticipated on Beaver Creek. There is no fill below ordinary high water and no piers are below normal pool height. Piers 3, 4, and 5 are within the 100-year floodplain but outside of the proposed 100-year floodway.
13. Sta. 835+45 to 846+85 – Construct a nine-span bridge, 1140 ft (347 m) in length with nine piers that span Beaver Creek for traffic flowing westbound on US 460 (**Sheet 20, 21, and 22**). The drainage area at the bridge is 4.82 mi² (1,248 ha). During construction 347 ft. (106 m) of existing Beaver Creek will be realigned. The relocation of Beaver Creek will have some negative short-term affects such as increased sediment during construction and possible disruption of normal flow. However, no disruptive, long-term affects on aquatic habitat are anticipated on Beaver Creek. There is no fill below ordinary high water and no piers are below normal pool height. Piers 3, 4, and 5 are within the 100-year floodplain but outside of the proposed 100-year floodway.
14. Sta. 500+80 Stonecoal Fork Road – Construct a 30 in. (750 mm) pipe culvert 68.8 ft. (21.0 m) in length (**Sheet 24, 25, and 26**). This impacts 68.8 ft. (21.0 m) of existing stream. Field investigations indicate that Stonecoal Fork is an intermittent stream and is a tributary of Beaver Creek. Stonecoal Fork has a watershed of 321.4 acres (130.1 ha). The impact to waters of the U.S. is 0.005 acres (0.002 ha).
15. Sta. 509+50 Stonecoal Fork Road – Construct a 66 in. (1700 mm) pipe culvert 81.9 ft. (25.0 m) in length (**Sheet 24, 27, and 28**). This impacts 81.9 ft. (25.0 m) of existing stream. Field investigations indicate that Stonecoal Fork is an intermittent stream and a tributary of Beaver Creek. Stonecoal

Fork has a watershed of 321.4 acres (130.1 ha). The impact to waters of the U.S. is 0.01 acres (0.004 ha).

16. Sta. 841+60, KY 1373 Sta. 3+27.38 – Construct a double 8 ft. (2.4 m) by 4 ft. (1.2 m) RCBC, 32 ft. (9.8 m) in length with 49 ft. (14.9 m) of outlet channel improvements. (**Sheet 21, 23, and 24**). A 24'X7'X4.5' (7.3X2.1X1.4 m³) stilling basin is located at the inlet of the double box culvert. The watershed is 321.4 acres (130.1 ha). Field investigations indicate Stonecoal Fork is an intermittent stream and a tributary of Beaver Creek. Impact to waters is 0.01 acres (0.0006 ha).
17. Sta. 859+50 – Construct a 60 in. (1500 mm) pipe culvert 148 ft. (45.1 m) in length (**Sheet 29 and 30**). This impacts 452 ft. (137.8 m) of existing stream. Field investigations indicate this is ephemeral in nature and is an unnamed tributary of Beaver Creek, with a watershed of 31.7 acres (12.8 ha). The impact to waters of the U.S. is 0.02 acres (0.007 ha).
18. Sta. 877+00 to 890+00 – Flow from an unnamed tributary of the Right Fork of Beaver Creek consisting of 557 ft. (169.8 m) of intermittent stream and 247 ft. (75.3 m) of ephemeral streams will be filled in with the flow diverted into flat bottom ditches (**Sheet 31**). Impact to waters of the U.S. is 0.07 acres (0.03 ha).
19. Sta. 882+00 – Construct a 72 in. (1800 mm) pipe culvert 260 ft. (79.2 m) in length with 180 ft. (54.9 m) of outlet channel design (**Sheet 31 and 32**). This impacts 852 ft. (259.7 m) of existing stream. Field investigations indicate this is an intermittent stream and an unnamed tributary of Right Fork of Beaver Creek, with a watershed of 61.9 acres (25.1 ha). The impact to waters of the U.S. is 0.06 acres (0.02 ha).
20. Sta. 906+00 to Sta. 936+00 – A tributary to Wolfpen Branch consisting of 3651 ft. (1112.8 m) of intermittent stream and 1649 ft. (502.6 m) of ephemeral will be filled in with the flow diverted into flat bottom ditches (**Sheet 33**). Impact to waters of the U.S. is 0.45 acres (0.18 ha).
21. Sta. 927+50 – Construct a 60 in. (1500 mm) pipe culvert 528 ft. (160.9 m) in length (**Sheet 33, 34, and 35**). This impacts 969 ft. (295.4 m) of existing stream. Field investigations indicate this is ephemeral in nature and is an unnamed tributary of Wolfpen Branch, with a watershed of 63.7 acres (25.8 ha). The impact to waters of the U.S. is 0.06 acres (0.02 ha).
22. Sta. 950+00, Haul Road Sta. 188+50 – Construct a 54 in. (1400 mm) pipe culvert, 68 ft. (20.7 m) in length (**Sheet 36, 37, and 38**). This impacts 68 ft. (20.7 m) of existing stream. Field investigations indicate Wolfpen Branch is an intermittent stream and a tributary to Grassy Creek, with a watershed of 52.0 acres (21.0 ha). The impact to waters of the U.S. is 0.007 acres (0.003 ha).
23. Sta. 950+00, Haul Road Sta. 192+50 – Construct a 30 in. (750 mm) pipe culvert, 96 ft. (29.3 m) in length (**Sheet 36, 39, and 40**). This impacts 96 ft. (29.3 m) of existing stream. Field investigations indicate Wolfpen Branch is an intermittent stream and a tributary to Grassy Creek, with a watershed of 10.2 acres (4.1 ha). The impact to waters of the U.S. is 0.006 acres (0.002 ha).
24. Sta. 950+00, Haul Road Sta. 198+50 – Construct a 42 in. (1050 mm) pipe culvert, 184 ft. (56.1 m) in length (**Sheet 36, 41, and 42**). This impacts 184 ft. (56.1 m) of existing stream. Field investigations indicate Wolfpen Branch is an intermittent stream and a tributary to Grassy Creek, with a watershed of 13.6 acres (5.5 ha). The impact to waters of the U.S. is 0.01 acres (0.006 ha).
25. Sta. 952+50 – Construct a 8 ft. (2.4 m) by 6 ft. (1.8 m) RCBC, 300 ft. (91.4 m) in length (**Sheet 43 and 44**). The watershed is 224.8 acres (91 ha). This impacts 300 ft. (91.4 m) of existing stream. Field investigations indicate Wolfpen Branch is an intermittent stream and a tributary to Grassy Creek. Impact to waters is 0.06 acres (0.02 ha).

26. Sta. 967+50 to 991+00 – School House Branch, which consists of 2857 ft. (871 m) of intermittent stream and 1082 ft. (329.8 m) of ephemeral stream, will be filled in with the flow diverted into flat bottom ditches (**Sheet 45**). Impact to waters of the U.S. is 0.26 acres (0.11 ha).
27. Sta. 988+00 – Construct a 60 in. (1500 mm) pipe culvert 400 ft. (121.9 m) in length with 183 ft. (55.8 m) of outlet channel design (**Sheet 46 and 47**). This impacts 2191 ft. (667.8 m) of existing stream. Field investigations indicate this drainage is ephemeral in nature and a tributary of Grassy Creek, with a watershed of 42.7 acres (17.3 ha). The impact to waters of the U.S. is 0.07 acres (0.03 ha).
28. Sta. 991+00 to 1020+00 – Footprint of Section 9V (**Sheet 48**).

Waste Site:

1. Sta. 807+00 – the valley of an unnamed tributary of Mud Lick will be filled in with waste materials (rock and soil) generated by the construction of US 460 (**Sheet 14A**). This will result in the filling of 2792 ft. (851 m) of intermittent stream and 242 ft. (74 m) of ephemeral streams. Total volume of excess materials is 820 thousand CY. The impact to waters is 0.43 acres (0.17 ha). These impacts are subject to change upon construction but represent the maximum possible impact to waters of the U.S.
2. Sta. 821+50 – the valley of an unnamed tributary of House Log Fork will be filled in with waste materials (rock and soil) generated by the construction of US 460 (**Sheet 14A**). This will result in the filling of 2602 ft. (793 m) of intermittent stream and 306 ft. (93 m) of ephemeral streams. Total volume of excess materials is 1.7 million CY. The impact to waters is 0.38 acres (0.15 ha).
3. Sta. 837+00 – the valley of an unnamed tributary of Stone Coal Fork will be filled in with waste materials (rock and soil) generated by the construction of US 460 (**Sheet 20 and 20A**). This will result in the filling of 4792 ft. (1460.6 m) of intermittent stream and 1866 ft. (568.8 m) of ephemeral streams. The impact to waters is 0.66 acres (0.27 ha).
4. Sta. 950+00 – the valley of the Wolfpen Branch will be filled with waste materials (rock and soil) generated by the construction of US 460 (**Sheet 36 and 36 A**). This will result in the filling of 3472 ft. (1058.3 m) of intermittent stream, and 2584 ft. (787.6 m) of ephemeral stream. The impact to waters is 0.8 acres (0.32 ha).

SUMMARY OF STREAM IMPACTS

STRUCTURE	LENGTH		WATERSHED		IMPACT TO WATERS OF THE U.S.	
	Feet	Meters	Acres	Hectares	Acres	Hectares
Sta. 59+00 , Culvert, inlet and outlet channel improvements	99	30.2	132.7	53.7	0.02	0.008
Sta. 77+50 , RCBC, inlet and outlet channel improvements	228	69.5	106.4	43	0.05	0.02
Ramp 1, Sta. 205+25 , RCBC, inlet and outlet channel improvements	126	38.4	100.5	40.7	0.02	0.009
Sta. 88+35 , KY 80 Bridge	85	25.9	3987	1614	--	--

Ramp 2, Sta. 310+72.50, Bridge	377.5	115.1	3917	1585	--	--
Sta. 769+00, Culvert and outlet channel improvements	223	68.0	11.13	4.5	0.015	0.006
Sta. 788+50, Culvert and outlet channel improvements	203	61.9	12.2	4.9	0.014	0.006
Sta. 807+33, RCBC, inlet and outlet channel improvements	479	146	95.3	38.6	0.09	0.04
Sta. 820+20, RCBC, inlet and outlet channel improvements	446	135.9	148.9	60.3	0.1	0.04
Sta. 820+84.44, KY 1373, RCBC, inlet and outlet channel improvements	281	85.6	169.8	68.7	0.06	0.03
Sta. 834+86 and Sta. 835+45 Beaver Creek Bridge	EB-1090 WB-1140	EB-332.2 WB-347.5	3085	1248	--	--
Sta. 49+00 to 52+25, Channel change	347	106	3085	1248	0.10	0.04
Sta. 500+80 Stone Coal Fork Rd, Culvert	68.8	21.0	321.4	130.1	0.005	0.002
Sta. 509+50 Stone Coal Fork Rd. Culvert	81.9	25.0	321.4	130.1	0.01	0.004
Sta. 841+60, KY 1373 Sta. 3+27.38 Double RCBC with outlet channel improvements and stilling basin	81 7	24.7 2.1	321.4	130.1	0.01	0.0006
Sta. 859+50, Culvert	148	45.1	31.7	12.8	0.02	0.007
Sta. 877+00 to 890+00 Diversion of Tributary to Right Fork of Beaver	Int-557 Eph-247	Int-169.8 Eph-75.3	77.2	31.2	0.07	0.03
Sta. 882+00, Culvert and outlet channel improvements	440	134.1	61.9	25.1	0.06	0.02
Sta. 906+00 to 936+00 Diversion of Tributary to Wolfpen Branch	Int-3651 Eph-1649	Int-1112.8 Eph-502.6	≈140	≈57	0.45	0.18
Sta. 927+50, Culvert	528	160.9	63.7	25.8	0.06	0.02
Sta. 950+00, Haul Rd. Sta. 188+50 Culvert	68	20.7	52	21	0.007	0.003
Sta. 950+00, Haul Rd. Sta. 192+50 Culvert	96	29.3	10.2	4.1	0.006	0.002
Sta. 950+00, Haul Rd. Sta. 198+50 Culvert	184	56.1	13.6	5.5	0.01	0.006
Sta. 952+50, Culvert	300	91.4	224.8	91	0.06	0.02
Sta. 967+50 to 991+00, Diversion of School House Branch	Int-2857 Eph-1082	Int-871 Eph-329.8	130	53	0.26	0.11
Sta. 988+00, Culvert and outlet channel improvements	583	177.7	47	19	0.07	0.03

Sta. 807+00 , Excess Material Site Mud Lick Creek	Int-2792 Eph-242	Int-851 Eph-74	--	--	0.43	0.17
821+50 , Excess Material Site House Log Fork	Int-2602 Eph-793	Int-306 Eph-93	--	--	0.38	0.15
Sta. 837+00 , Excess Material Site Stone Coal Fork	Int-4792 Eph-1866	Int-1460.6 Eph-568.8	321.4	130.1	0.66	0.27
Sta. 950+00 , Excess Material Site Wolfpen Branch	Int-3472 Eph-2584	Int-1058.3 Eph-787.6	224.8	91	0.8	0.32

LEGEND:
 * Epimerial - † Intermittent - ▼ Perennial

US 460 Sections 7, 8 and 9V Permit Application

Calculation of impact to waters
 and fill below ordinary high water

Roadway Station, Impact Type, Stream	Name	Length (ft)	Width (ft)	Area (ft ²)	Area (acres)	DEPTH	Volume (ft ³)	Volume (CY)
Sia 59+00 - RCBC, Trib of Russell Fork	*E-1	271	11	2431	0.06	3	270	10
Sia 77+50 - RCBC, Trib of Russell Fork	*E-1	470	4.5	2115	0.05	1	2115	78
Ramp 1, Sia 205+25 RCBC, Trib of Russell Fork	*E-1	229	4.5	1031	0.02	1	1031	38
Sia 769+00, Culvert, Beaver Creek	*E-5	407	3.5	1425	0.03	1	1425	53
Sia 807+33, RCBC, Beaver Creek	*E-4	300	5.5	1650	0.04	1	1650	61
Sia 807+33, RCBC, Beaver Creek	†T-3	587	5.5	3229	0.07	2	6457	239
Sia 820+20, RCBC, Beaver Creek	†T-1	153	5.5	840	0.02	4	3360	124
Sia 832+50, Filled, Beaver Creek	*E-3	150	3.5	525	0.01	1	525	19
Sia 49+00 to 52+25 - Beaver Creek channel change	▼Sec 2	347	12	4164	0.10	3	12492	463
Sia 859+50, Culvert, Beaver Creek	*E-2	452	3.5	1582	0.04	1	8027	297
Sia 882+00, Culvert, Trib to Rgt Beaver Creek	†T-2a	852	4.5	3833	0.09	3	11499	426
Sia 877+00 to 890+00, Filled	†T-2b	557	4.5	2508	0.06	3	7525	279
Tributary to Rgt Beaver Creek	*E-1	247	1.5	370	0.01	1	370	14
Sia 906 to 936, Filled	*E-2	684	2.5	1709	0.04	1	1709	63
Tributary to Wolfpen Branch	*E-3	241	2	482	0.01	1	482	18
	*E-4	386	2	772	0.02	1	772	29
	*E-6	226	1.5	339	0.01	1	339	13
	*E-7	112	2.5	280	0.01	1	280	10
	†T-1a	2033	4.5	9148	0.21	3	27445	1016
	†T-1b	1618	4	6473	0.15	3	19420	719
Sia 927+50, Culvert, Tributary to Wolfpen Branch	*E-1	234	1.5	351	0.01	1	351	13
	*E-5	735	3.5	2572	0.06	1	2572	95
Sia 967+50 to 991+00, Filled	†Sec 1	1843	3.5	6452	0.15	2	12904	478
School House Branch	†Sec 2	1014	3	3042	0.07	2	6084	225
	*E-1	805	1.5	1208	0.03	1	1208	45
	*E-5	277	2	554	0.01	1	554	21
Sia 988+00, Culvert, School House Branch	*E-2	681	1	681	0.02	1	681	25
	*E-3	350	1.5	525	0.01	1	525	19
	*E-4	1160	1.5	1740	0.04	1	1740	64
Sia 807+00, Mud Lick Creek	†Sec 2	450	5.5	2475	0.06	2	4950	183
Excess Material Site	†Sec 3	659	5	3295	0.08	2	6590	244
	†Sec 4	1883	5.5	9257	0.21	2	18513	686
	*E-1	242	1	242	0.01	1	242	9
Sia 821+50, House Log Fork	†Sec 1	1368	5.5	7524	0.17	2	15048	557
Excess Material Site	†Sec 1A	223	3	669	0.02	2	1338	50
	†Sec 2	1012	7	7084	0.16	2.5	17710	656
	*E-1	142	4	568	0.01	4	2272	84
	*E-2	164	3.5	574	0.01	3.5	2009	74
Sia 837+00, Stonecoal Fork	*E-1	787	2.5	1968	0.05	1	1968	73
Excess Material Site	*E-2	1079	2	2158	0.05	1	2158	80
	†Sec 1	3333	5	16665	0.38	3	49995	1852
	†Sec 2	1459	5.5	8027	0.18	3	24080	892
Sia 950+00, Haul Rd, Wolfpen Branch	†Sec 1	940	10	9400	0.22	3	28200	1044
Excess Material Site	†Sec 2	515	5.5	2831	0.06	3	8494	315
	†Sec 3	835	6.5	5424	0.12	3	16273	603
	†Sec 4	1182	5	5910	0.14	2	11820	438
	*E-8	487	5	2433	0.06	1	2433	90
	*E-9	653	3	1960	0.05	1	1960	73
	*E-10	807	3.5	2825	0.06	1	2825	105
	*E-11	443	1.5	664	0.02	1	664	25
	*E-12	194	1.5	291	0.01	1	291	11
	†T-2	606	4	2424	0.06	2	4848	180

TOTAL IMPACTS									
Culverts Fill Excess Material Sites	Intermittent		Epimerial		Perennial		Total Acres		Total CY
	Length	Acres	CY	Length	Acres	CY	Length	Acres	CY
	1813	0.24	799	5018	0.31	745	NA	NA	NA
	7066	0.63	2718	3128	0.14	231	347	0.10	463
	14285	1.86	7698	4998	0.31	623	NA	NA	NA

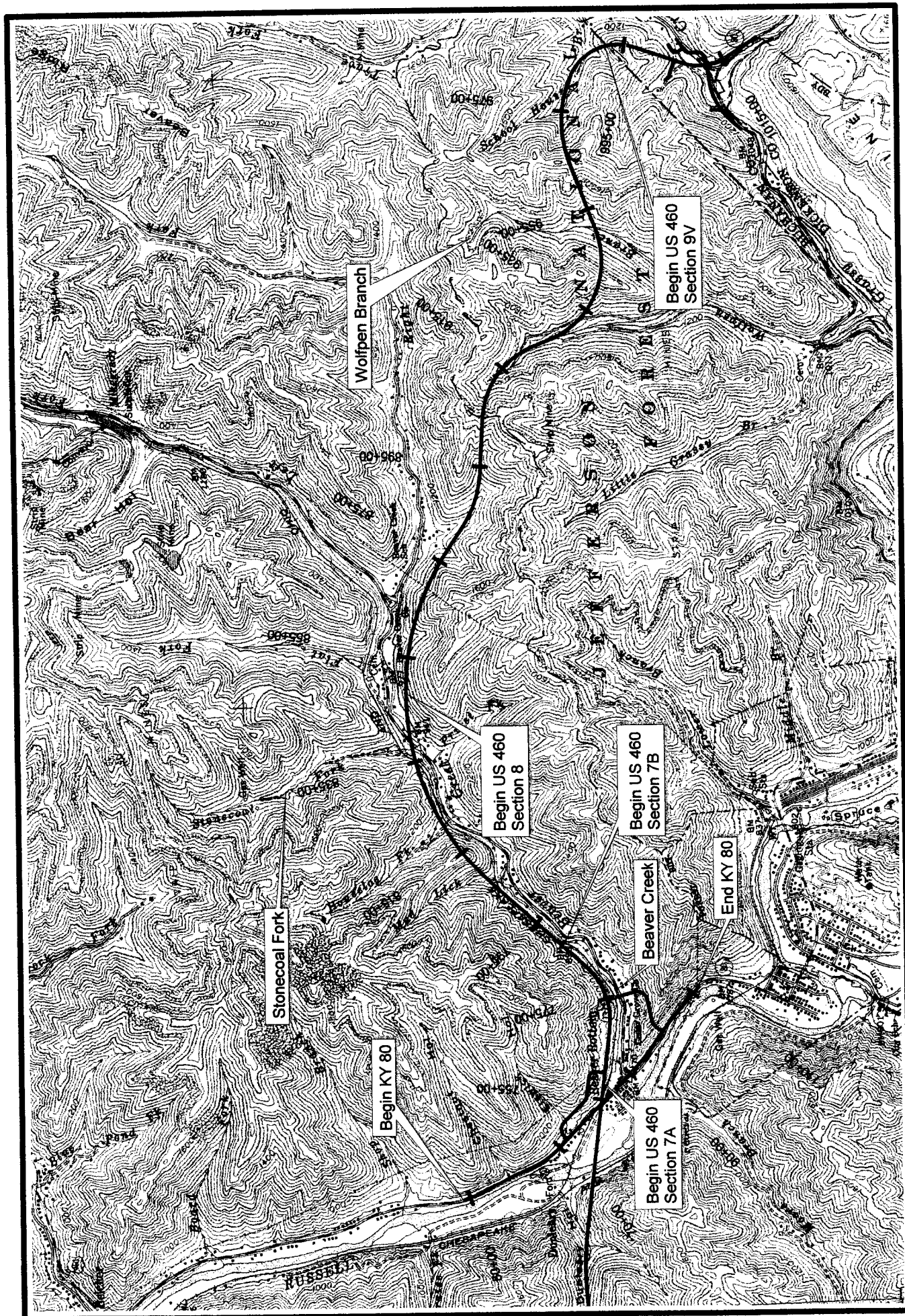
A depth of 1 ft. was used for most epimerial streams. For the sections of intermittent streams before a pipe culvert, the depth of the pipe culvert was used. Otherwise, the depths were verified from photos.

SUMMARY OF SECTION 404 IMPACTS

1. Sta. 998+10 – A tributary to Grassy Creek consisting of 126 ft. (38.4 m) of ephemeral stream will be filled (**Sheet 48a**). Impacts to waters of the U.S. is 0.01 acres (0.004 ha).
2. Sta. 1005+00 – Construct a 48 in. (1200 mm) entrance pipe, 52 ft. (15.8 m) in length (**Sheet 48a**). The watershed is 16.9 acres (6.8 ha). This impacts 603 ft. (183.8 m) of existing stream. Field investigations indicate this is an ephemeral stream and is an unnamed tributary of Grassy Creek. Impact to waters of the U.S. is 0.01 acres (0.004 ha).
3. Sta. 1007+12 – Construct a double 12 ft. (3.7 m) by 12 ft. (3.7 m) RCBC, 715 ft. (217.9 m) in length (**Sheet 48a and 48b**). The watershed is 4205 acres (1702 ha). This impacts 749 ft. (228.3 m) of existing Grassy Creek, a perennial stream. Impact to waters of the U.S. is 0.26 acres (0.11 ha).
4. VA 80, Sta. 59+34.57 – Construct a 9.46 ft. (2.9 m) by 10 ft. (3.0 m) RCBC, 83 ft. (25.3 m) in length (**Sheet 48a and 48c**). The watershed is 4288 acres (1735 ha). This impacts 90 ft. (27.4 m) of existing Grassy Creek, a perennial stream. Impact to waters of the U.S. is 0.02 acres (0.008 ha).

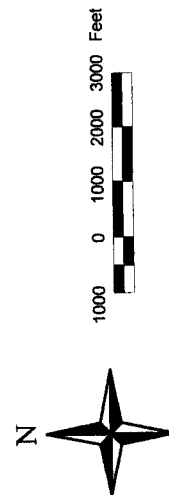
STRUCTURE	LENGTH		WATERSHED		IMPACT TO WATERS OF THE U.S.	
	Feet	Meters	Acres	Hectares	Acres	Hectares
Sta. 998+10, Fill	126	38.4	NA	NA	0.01	0.004
Sta. 1005+00, Entrance Pipe	603	183.8	16.9	6.8	0.01	0.004
Sta. 1007+12, RCBC	749	228.3	4205	1702	0.26	0.11
VA 80, Sta. 59+34.57, RCBC	90	27.4	4288	1735	0.02	0.008

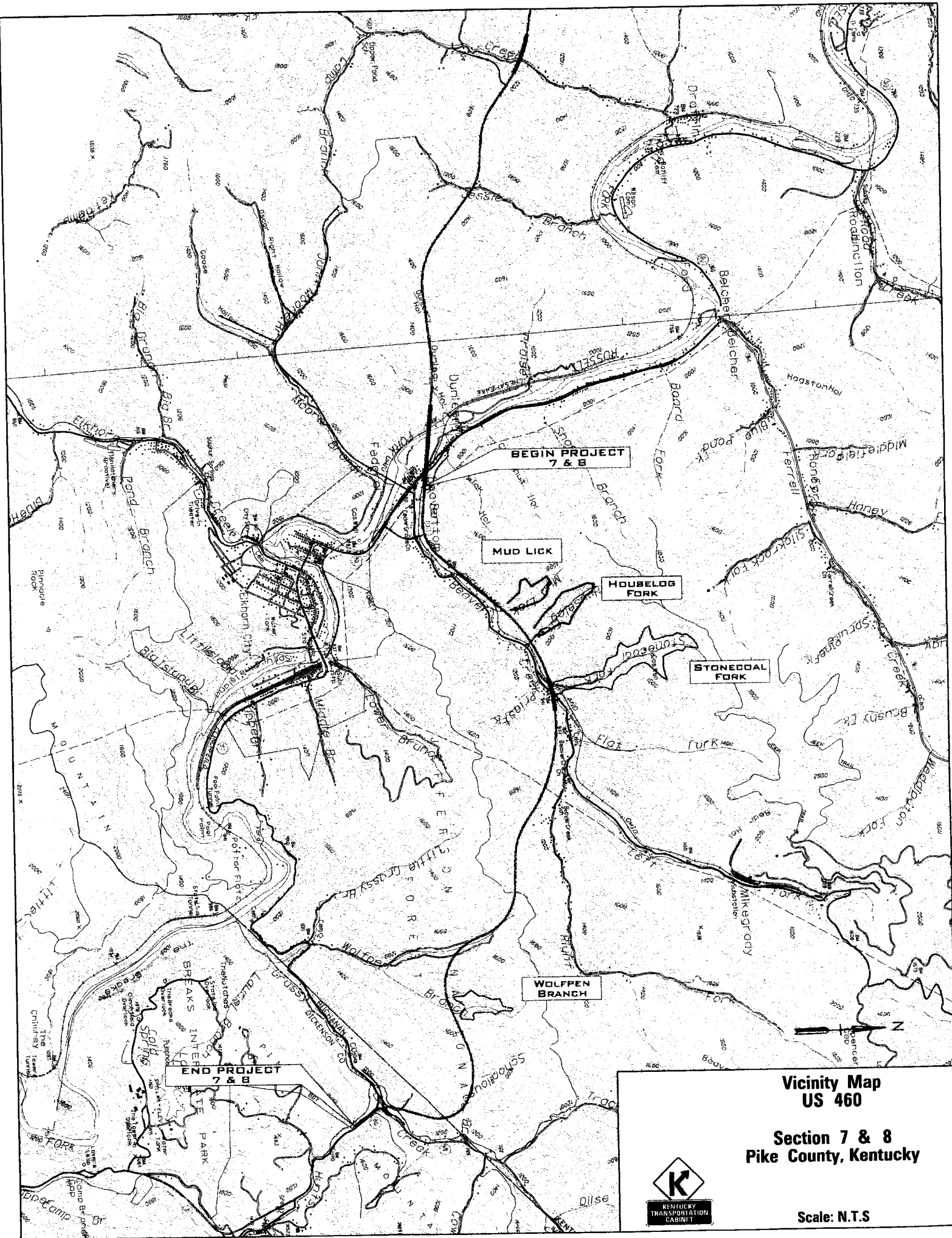
In-lieu fees calculations were completed using the *In-Lieu Fee Compensatory Mitigation Calculator (version 2002.8)* and are explained in the Stream Mitigation Report US 460, Section 9. The in-lieu fee for the 839 feet of perennial stream impacts is \$233,969.40. The in-lieu fee for 729 feet of ephemeral stream impacts is \$45,592.50 (\$9,442.50 and \$36,150.00, respectively).



Project Location Map

Sections 7A, 7B, 8 & 9V
Permit Application
Pike County, Kentucky
Buchanan County, Virginia



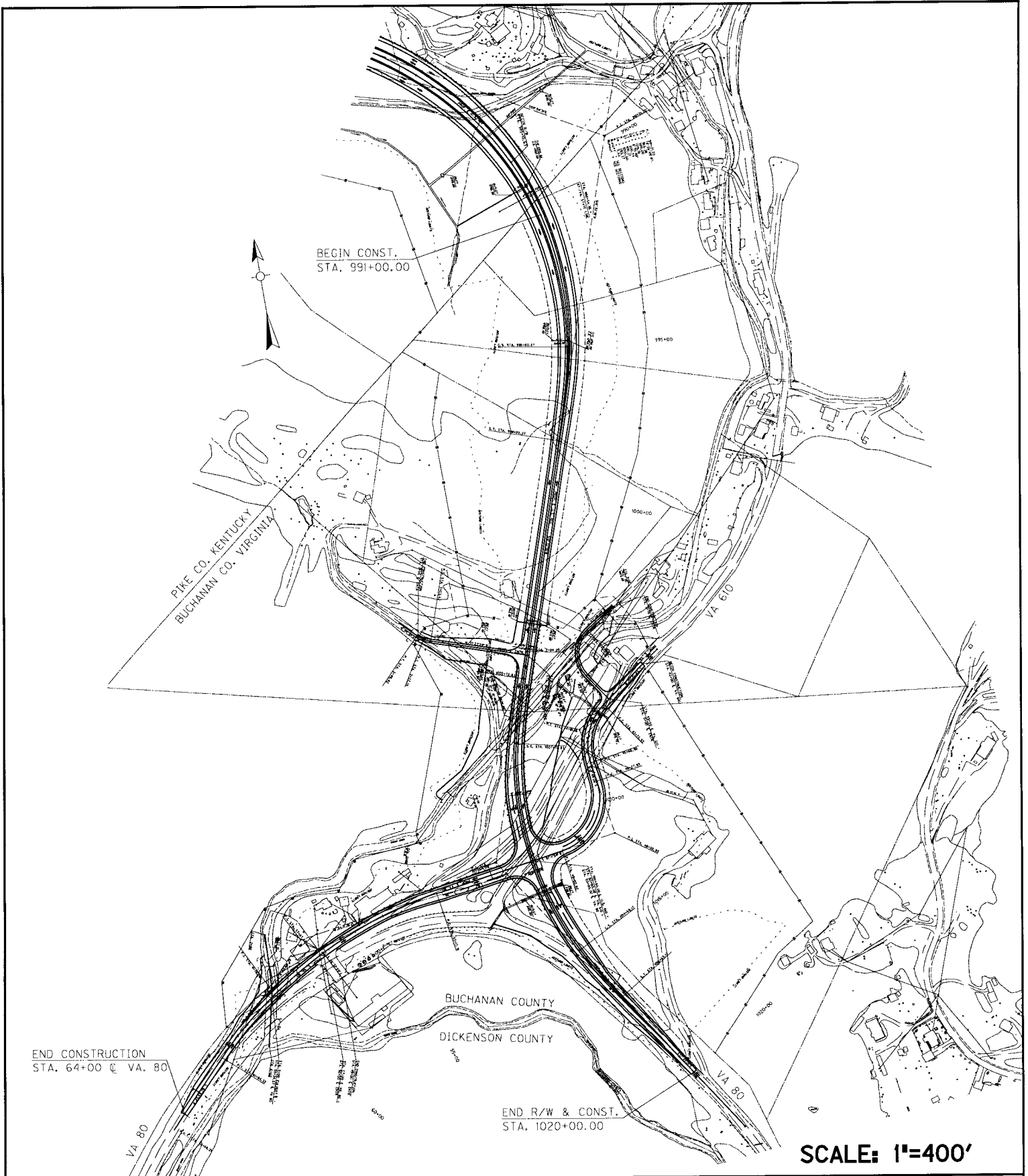


Vicinity Map
US 460

Section 7 & 8
Pike County, Kentucky



Scale: N.T.S



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Footprint - US 460 Section 9V

PROPOSED ACTIVITIES:

STREAM NAME:

AT OR NEAR:

Buchanan
COUNTY OF:

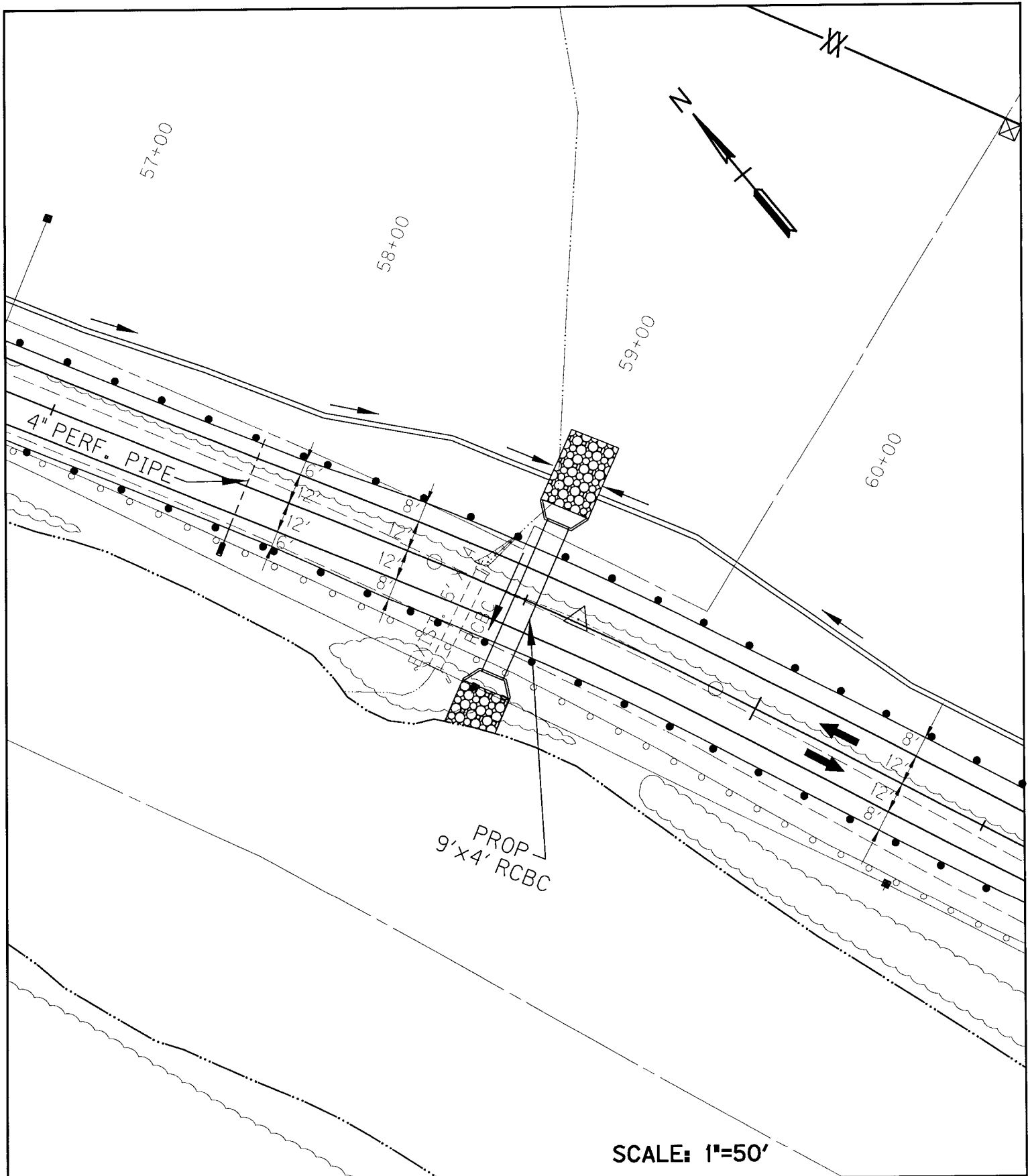
VIRGINIA
STATE OF:

MILE POINT:

12-263.90
ITEM NO.:

48 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=50'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

KY 80, Sta. 59+00 - 9' x 4' RCBC Const.

PROPOSED ACTIVITIES:

Tributary to Russell Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

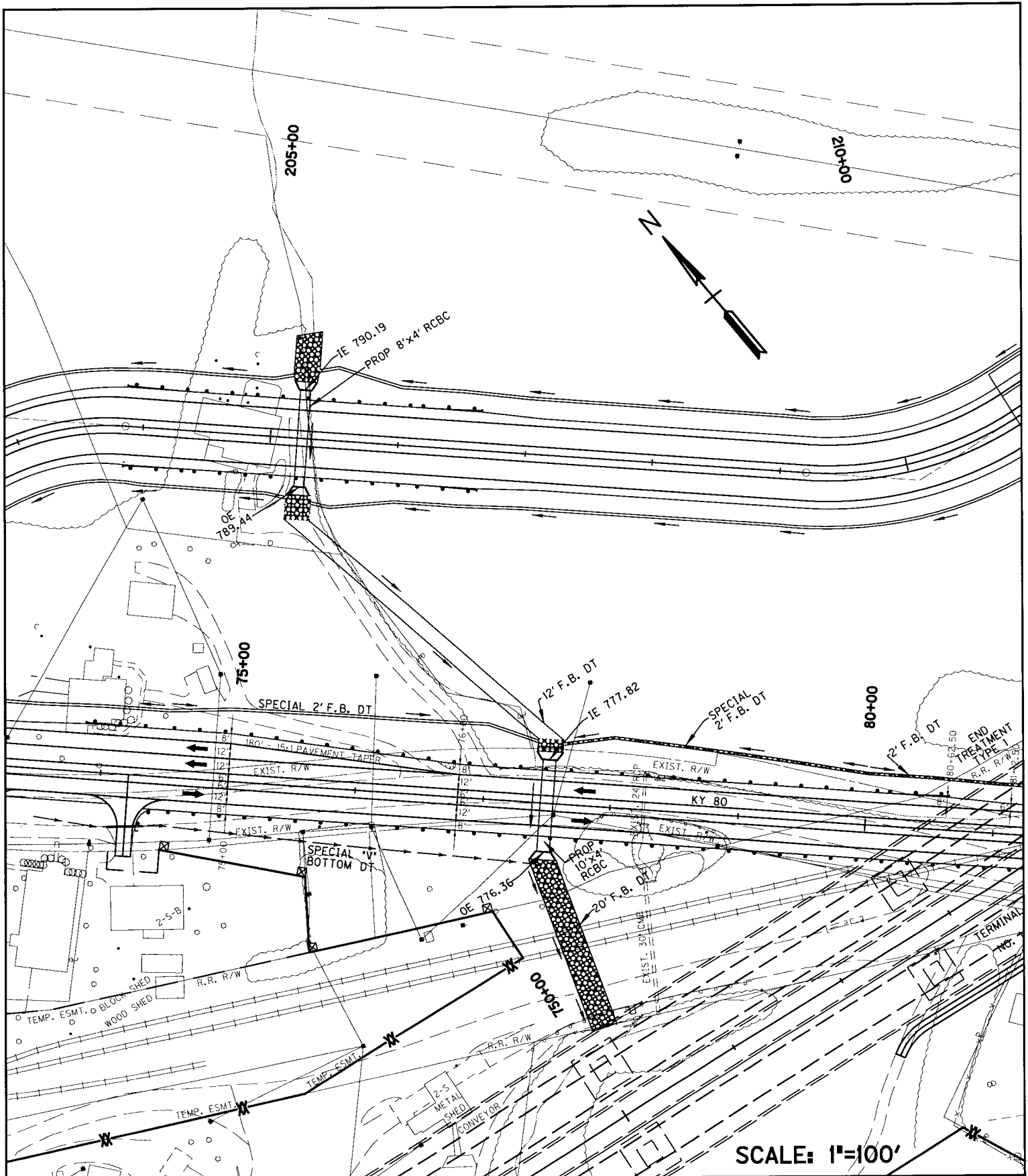
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

1 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

KY 80, Sta. 77+50 - 10' x 4' RCBC Const.
Ramp 1, Sta. 205+25 - 8' x 4' RCBC Const.
PROPOSED ACTIVITIES:

Tributary to Russell Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

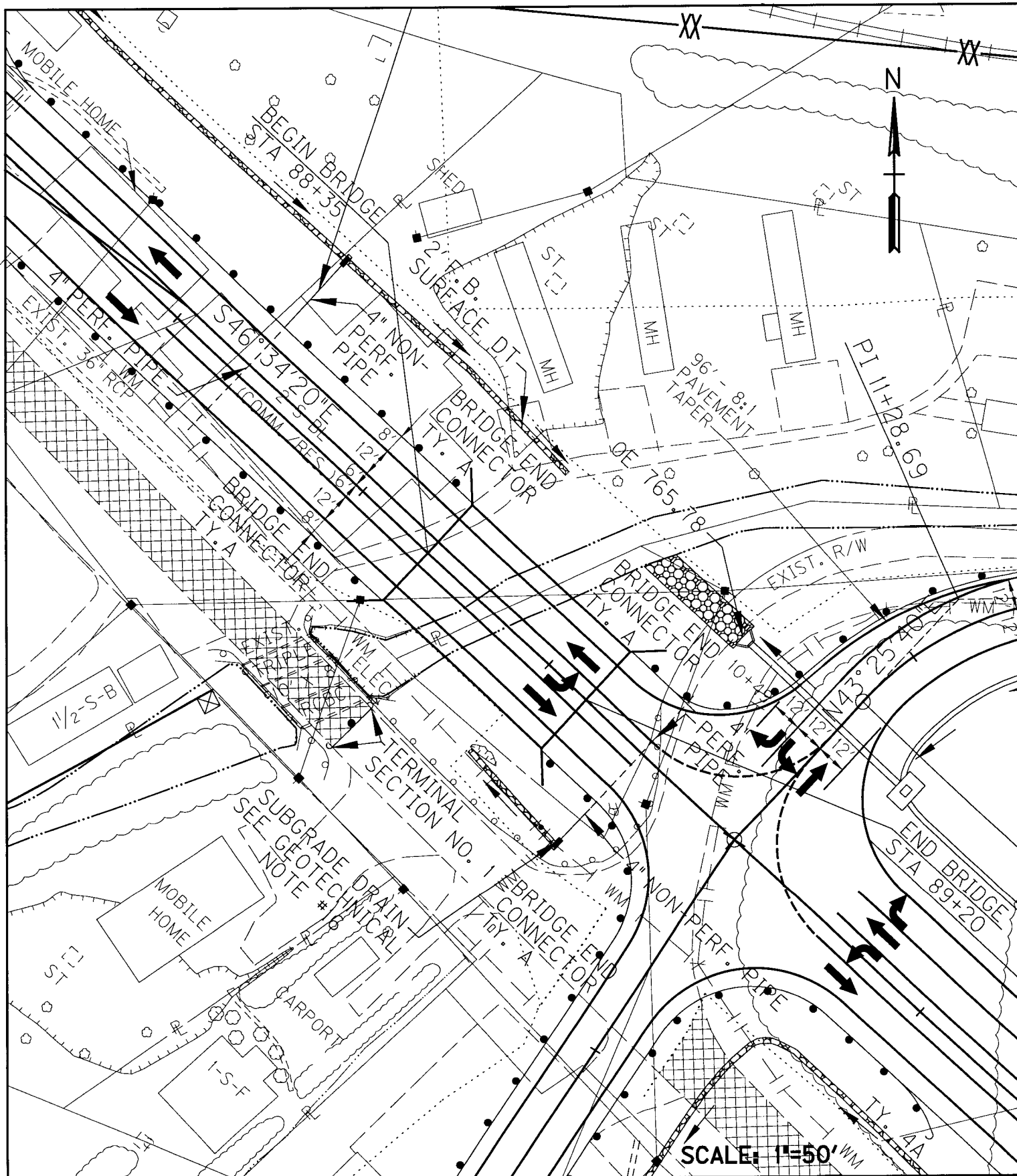
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

3 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

KY 80 Bridge # 88+35 over Beaver Creek

PROPOSED ACTIVITIES:

Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

STATE OF:

MILE POINT:

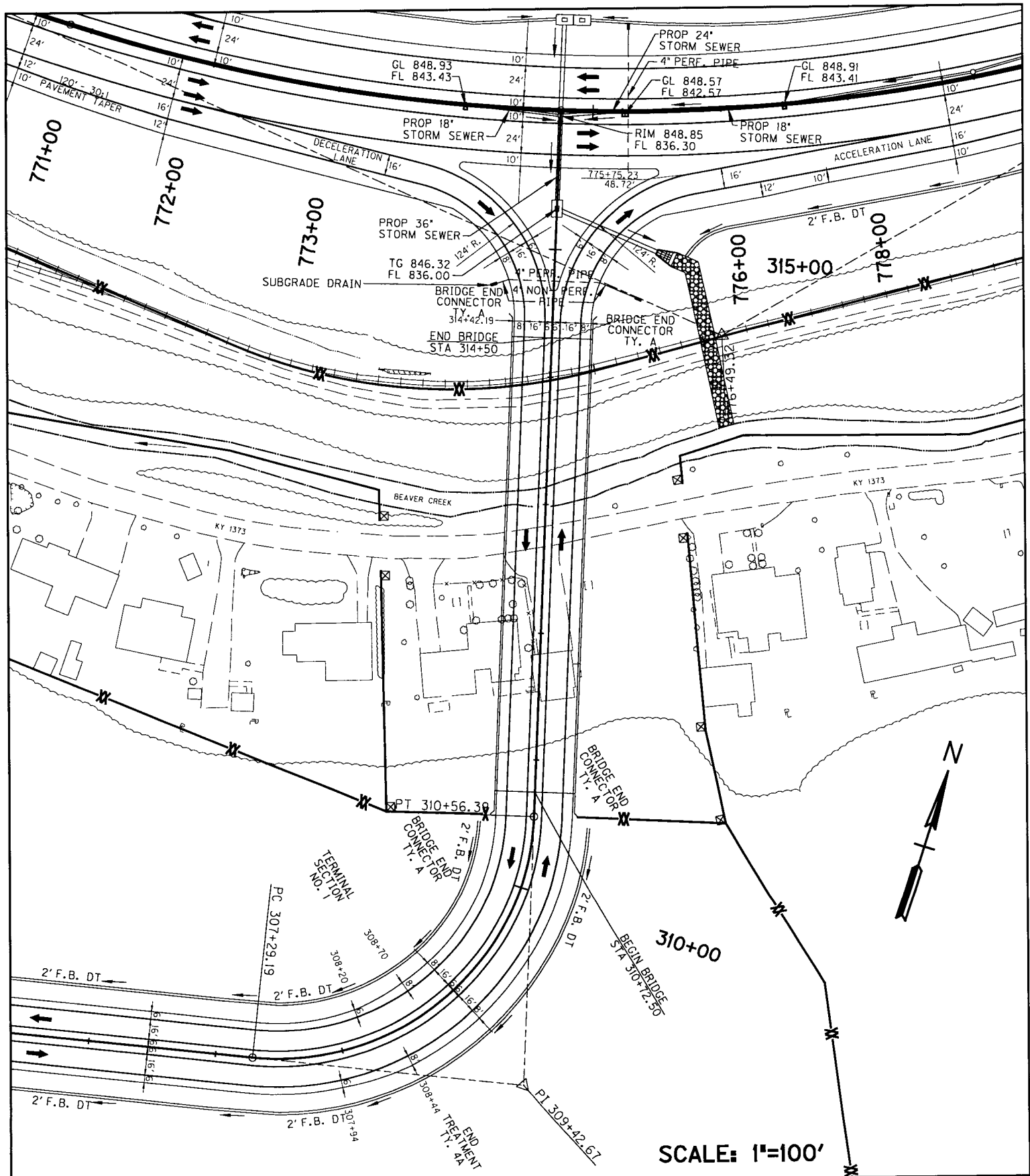
12-263.72

ITEM NO.:

6 OF 48

SHEET NO.

DATE: mo. /yr.



SCALE: 1"=100'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Ramp 2 Bridge @ Sta. 310+72.50 over Beaver Creek

PROPOSED ACTIVITIES:

Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

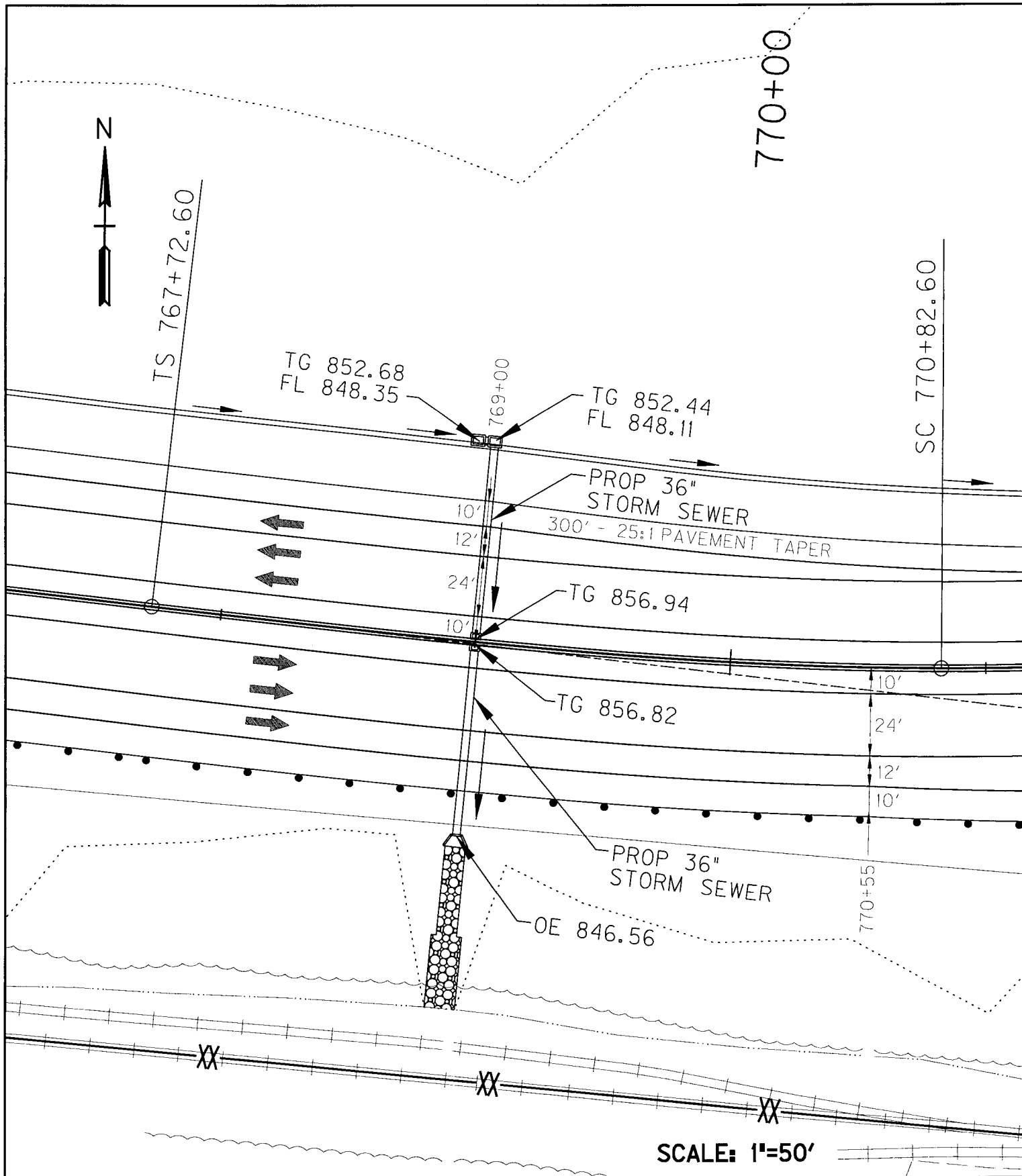
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

8 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=50'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 769+00 - 36" Storm Sewer Const.

PROPOSED ACTIVITIES:

Tributary to Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

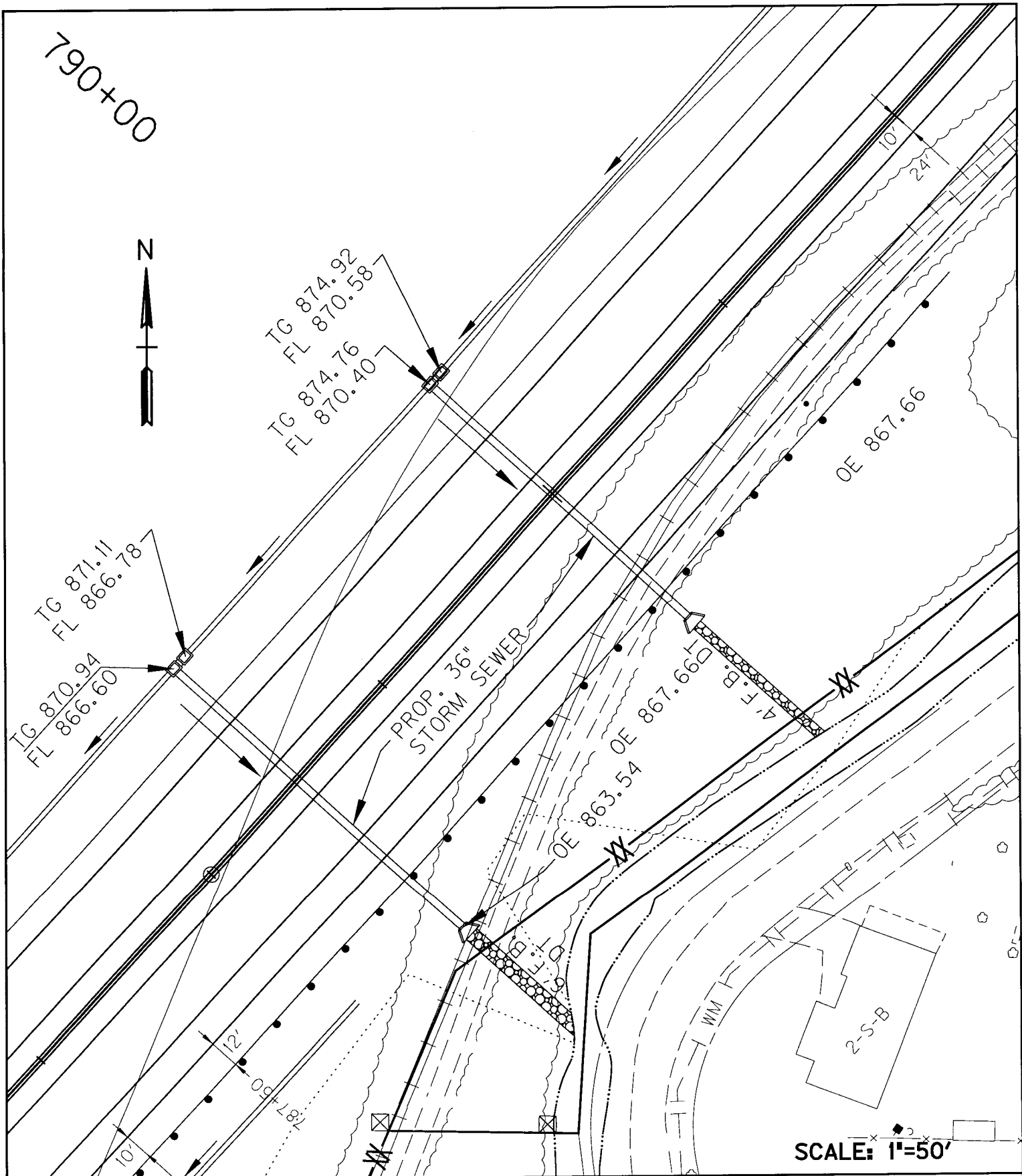
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

10 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 788+50 - 36" Storm Sewer Const.

PROPOSED ACTIVITIES:

Tributary to Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

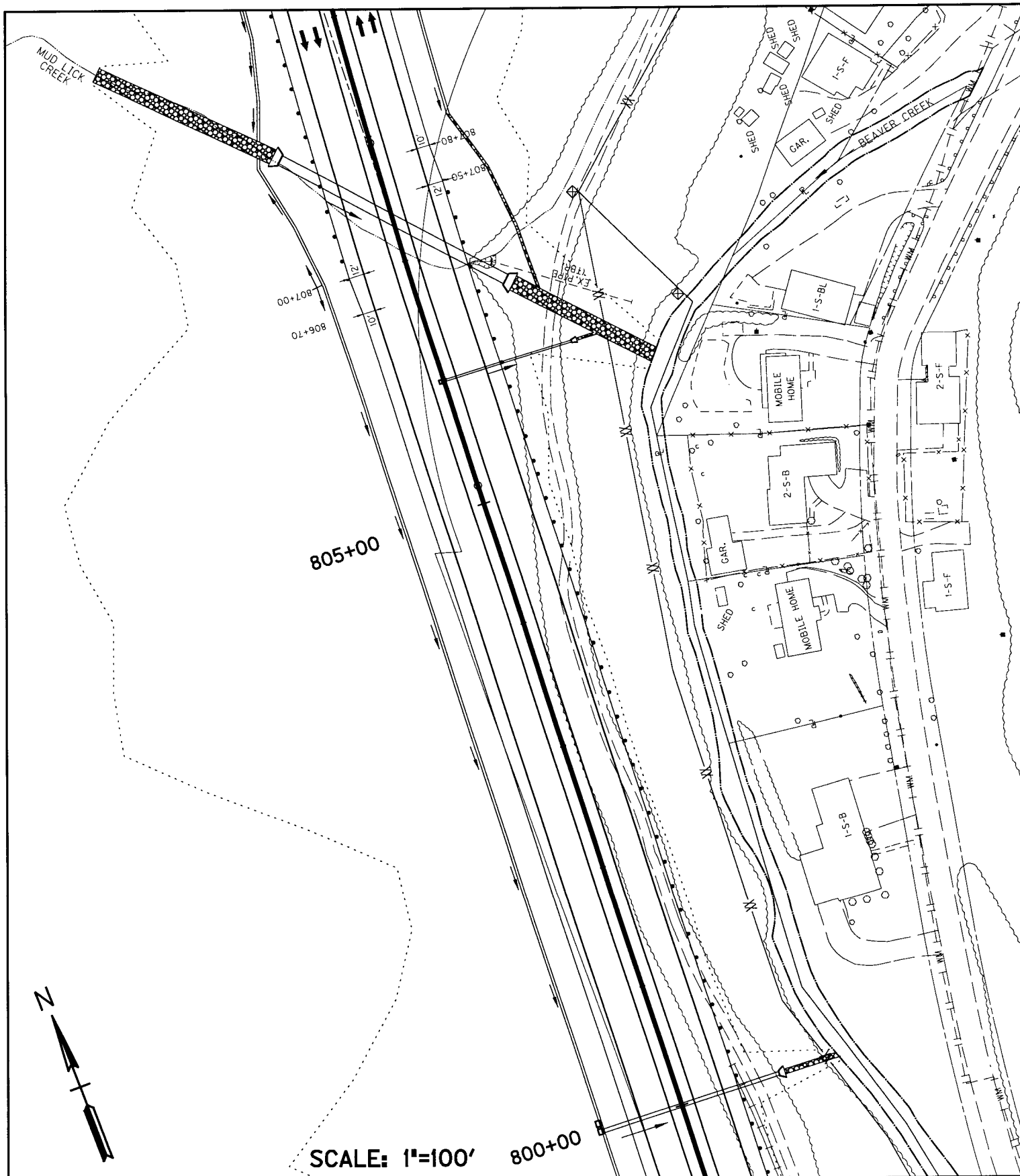
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

12 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 807+33 - 8' x 4' RCBC Const.

PROPOSED ACTIVITIES:

Tributary to Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

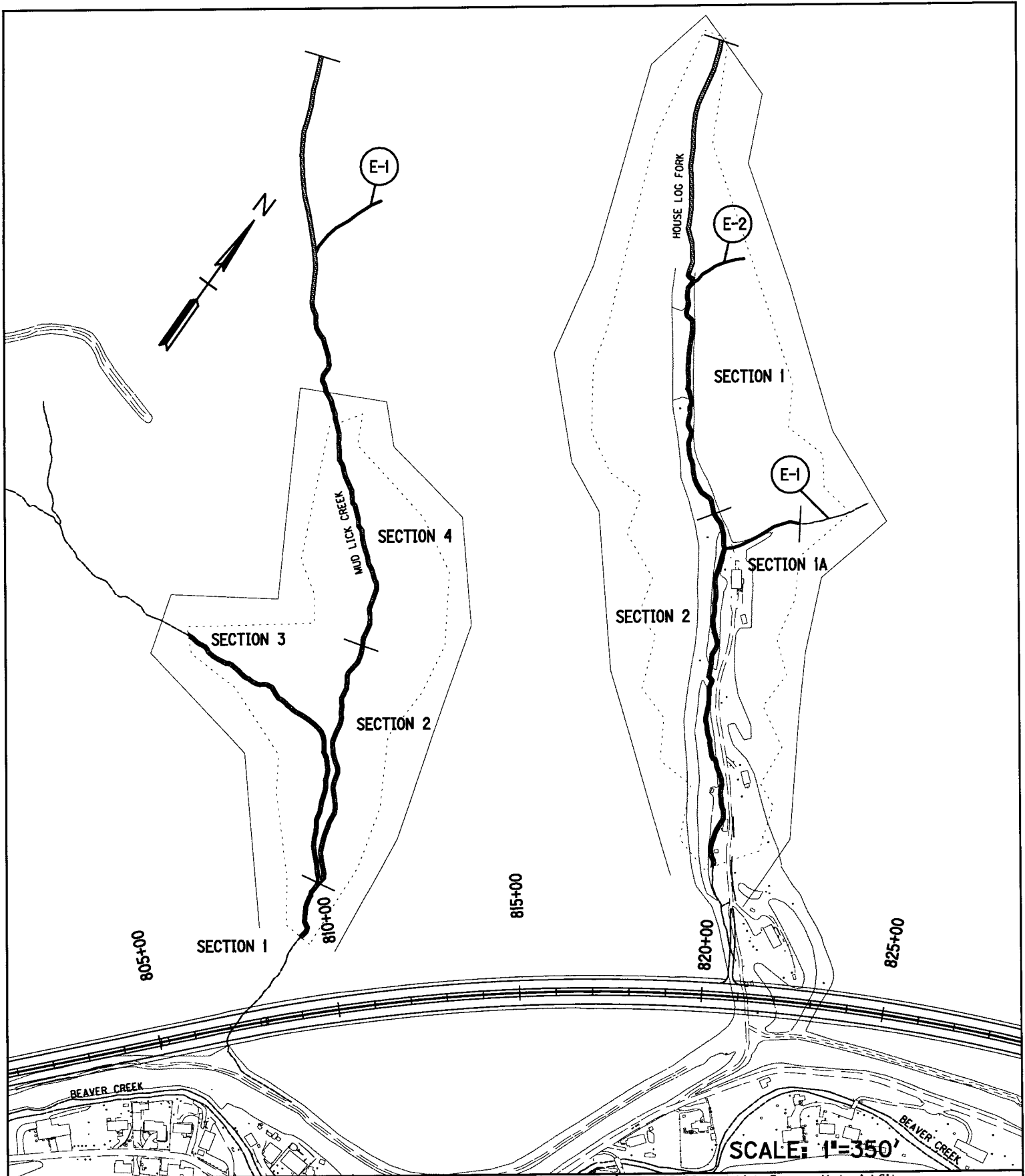
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

14 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 807+00 Mud Lick Excess Material Site.
Sta. 821+50 House Log Excess Material Site.

PROPOSED ACTIVITIES:

Mud Lick Creek
House Log Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

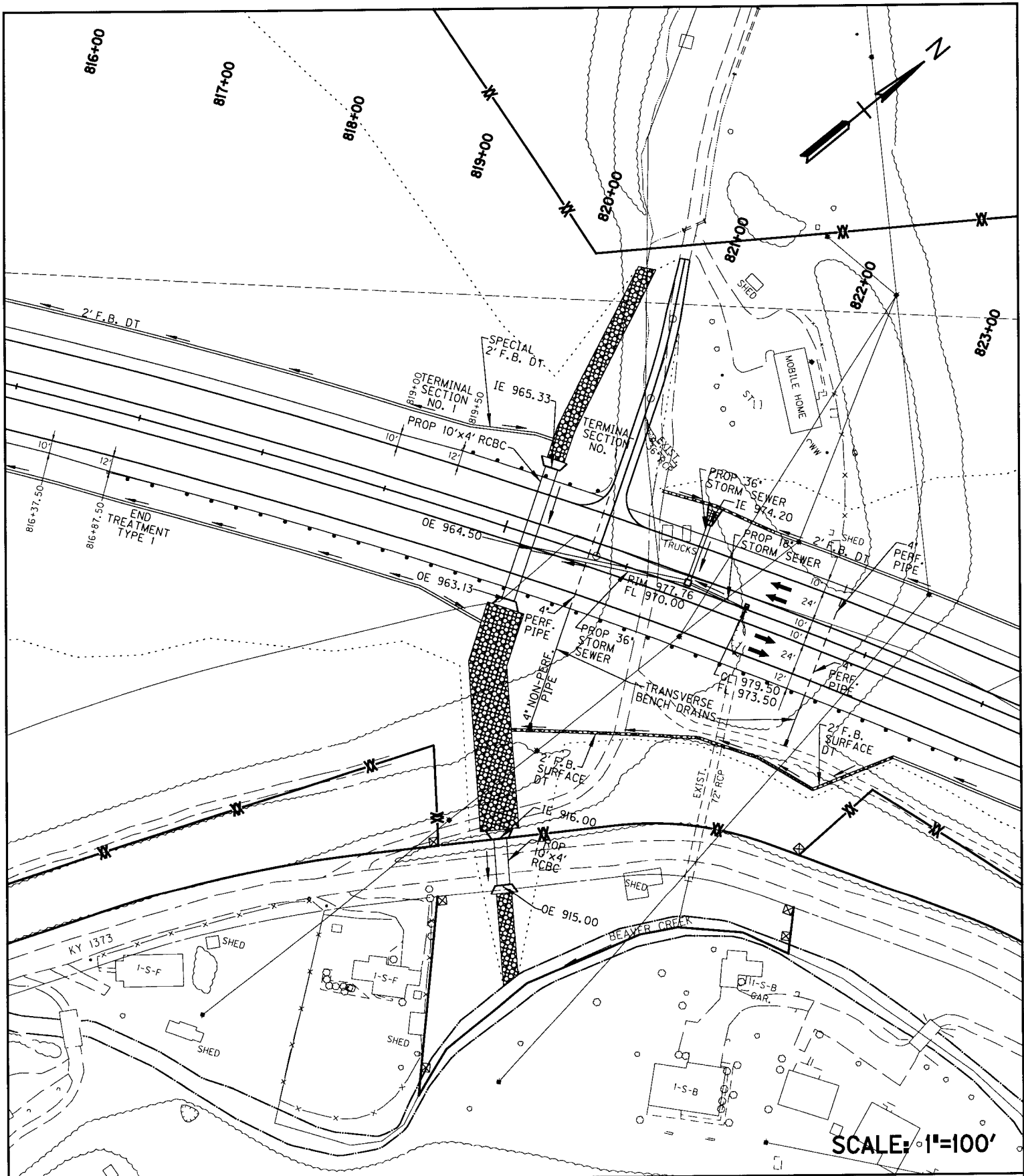
STATE OF:

MILE POINT:

12-263.72
ITEM NO.:

14A OF 44
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 820+20 - 10' x 4' RCBC Const.
Rt. Sta. 820+84.44 - 10' x 4' RCBC Const., KY1373
PROPOSED ACTIVITIES:

Tributary to Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

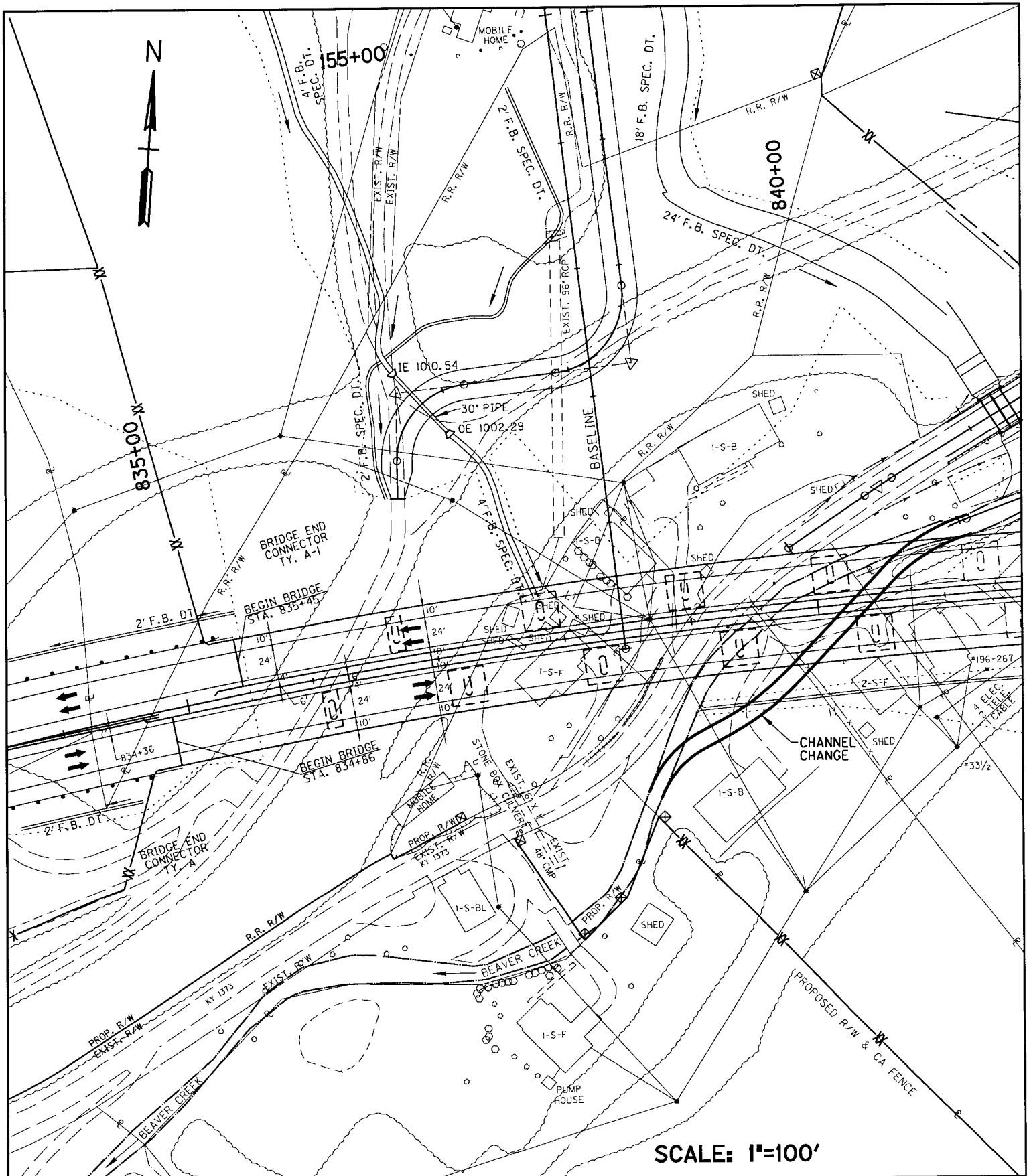
STATE OF:

MILE POINT:

12-263.75
ITEM NO.:

16 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

US 460 Bridge @ Sta. 834+86 over Beaver Creek

PROPOSED ACTIVITIES:

Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

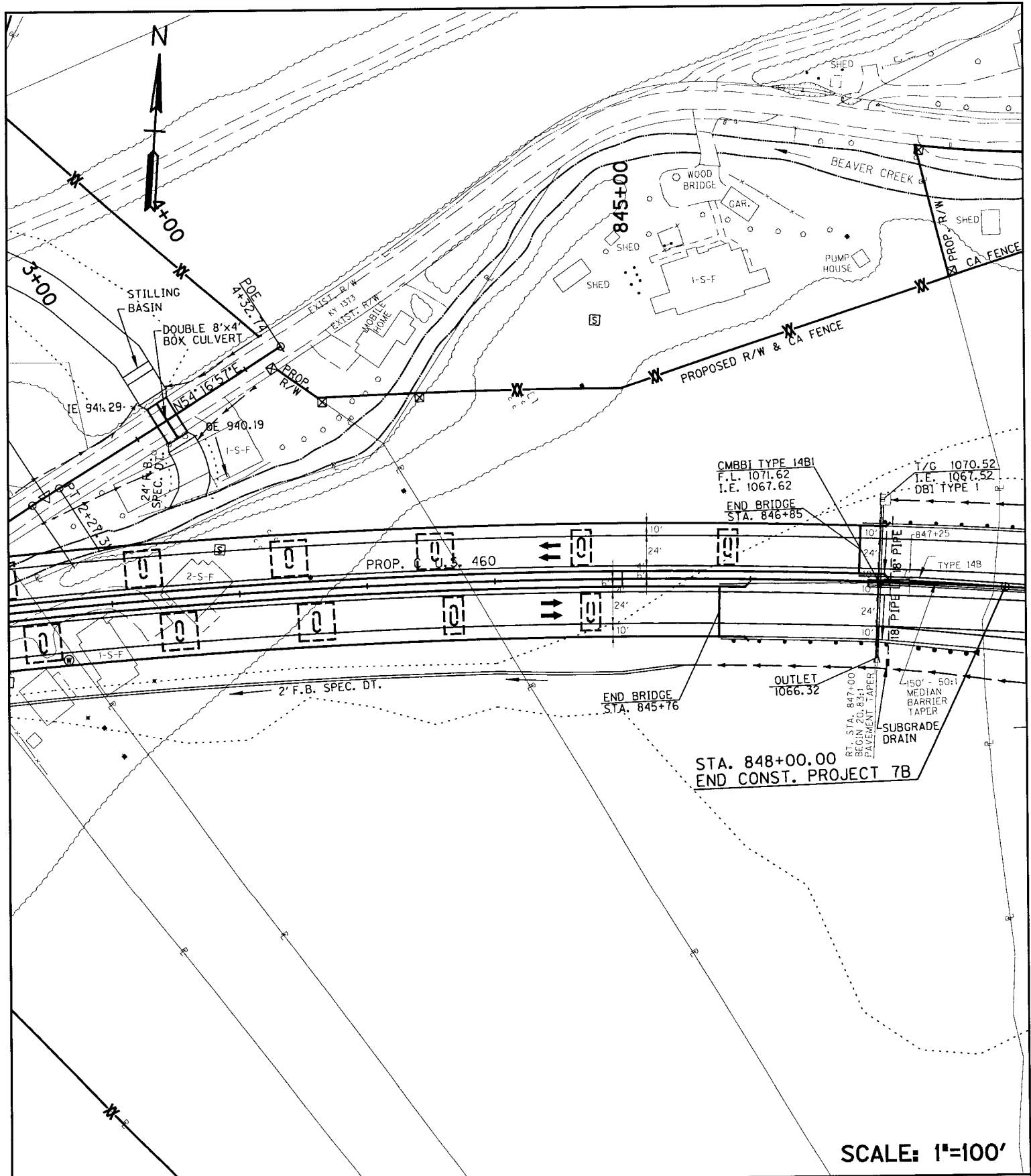
STATE OF:

MILE POINT:

12-263.75
ITEM NO.:

20 OF 48
SHEET NO.

DATE: mo. /yr.

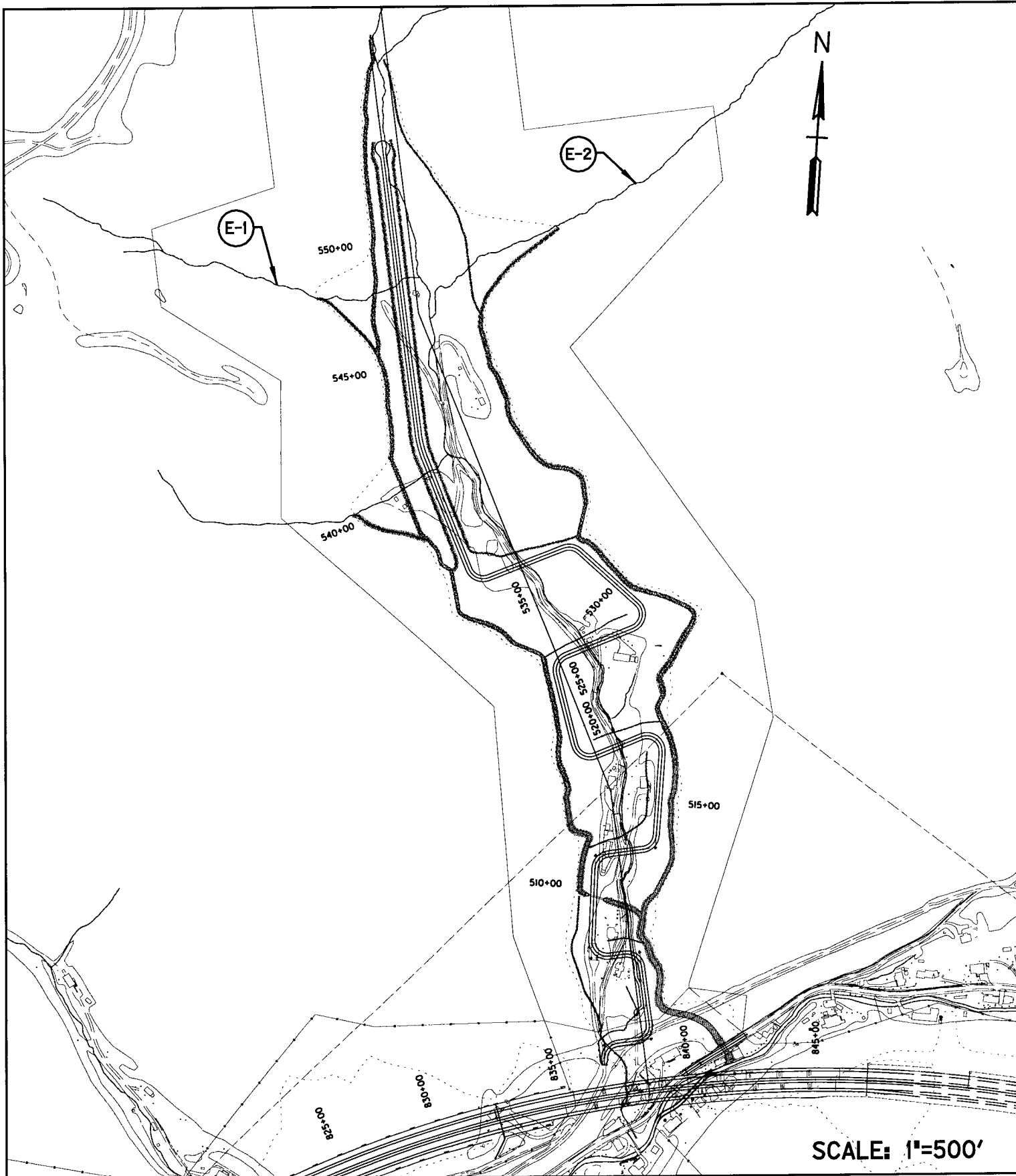


~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

SCALE: 1"=100'



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 837+00 Excess Material Site, Stonecoal Fork

PROPOSED ACTIVITIES:

Stonecoal Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

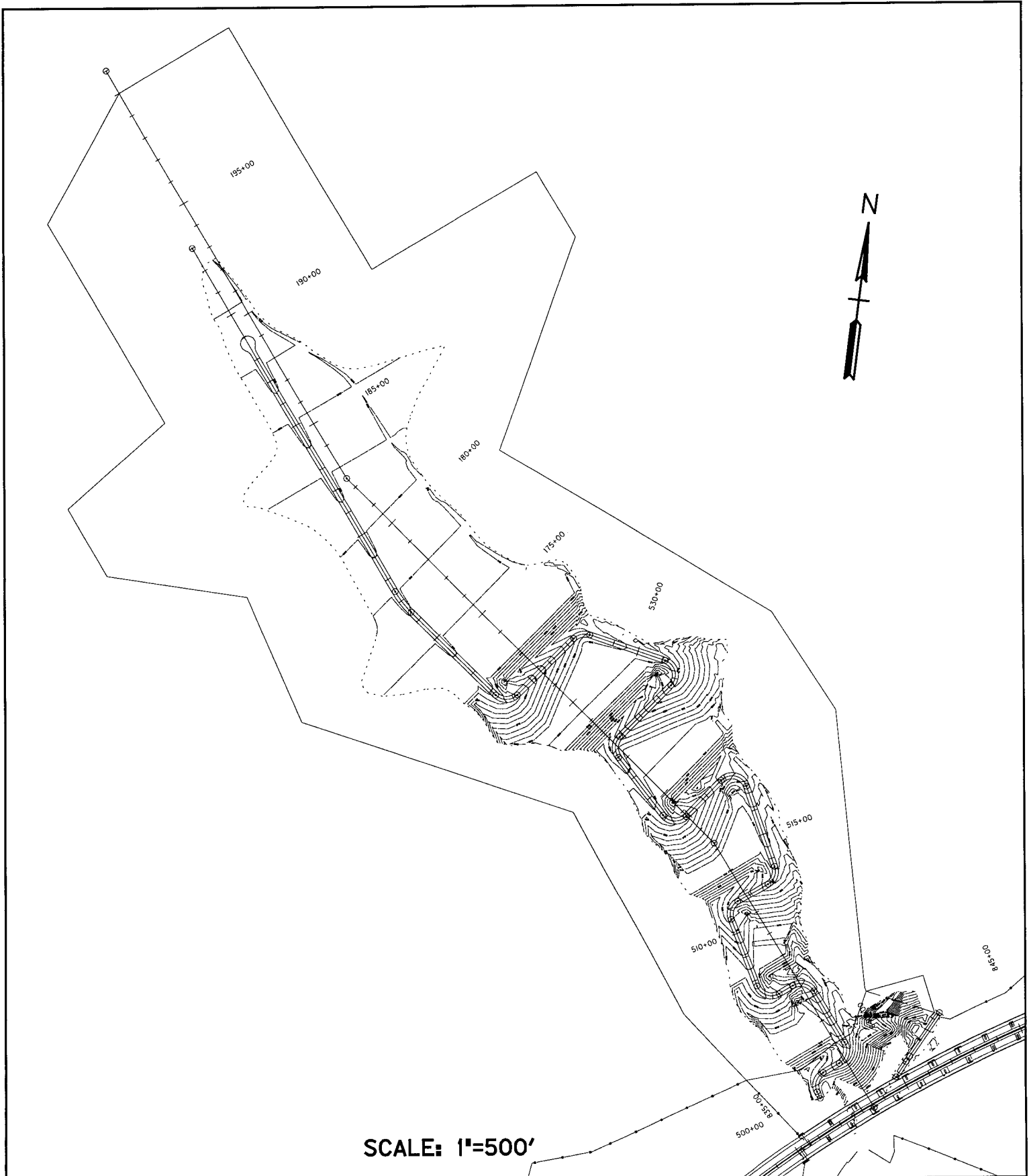
STATE OF:

MILE POINT:

12-263.75
ITEM NO.:

24 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 837+00 Excess Material Site Stonecoal Fork.
Proposed Contours

PROPOSED ACTIVITIES:

Stonecoal Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

STATE OF:

MILE POINT:

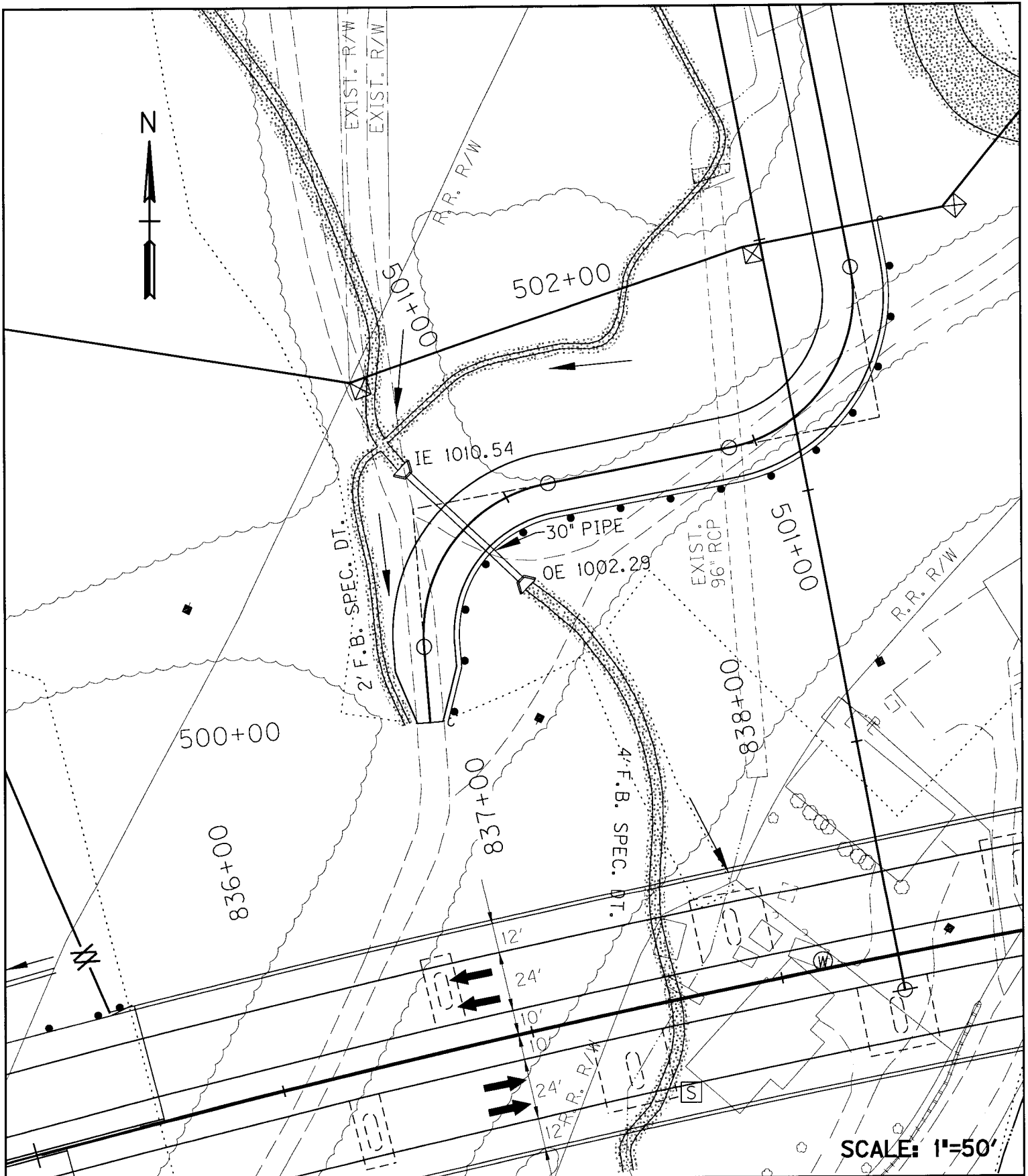
12-263.75

ITEM NO.:

24A OF 48

SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Stonecoal Fork Road Sta. 500+80 - 30" Pipe Const.

PROPOSED ACTIVITIES:

Stonecoal Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

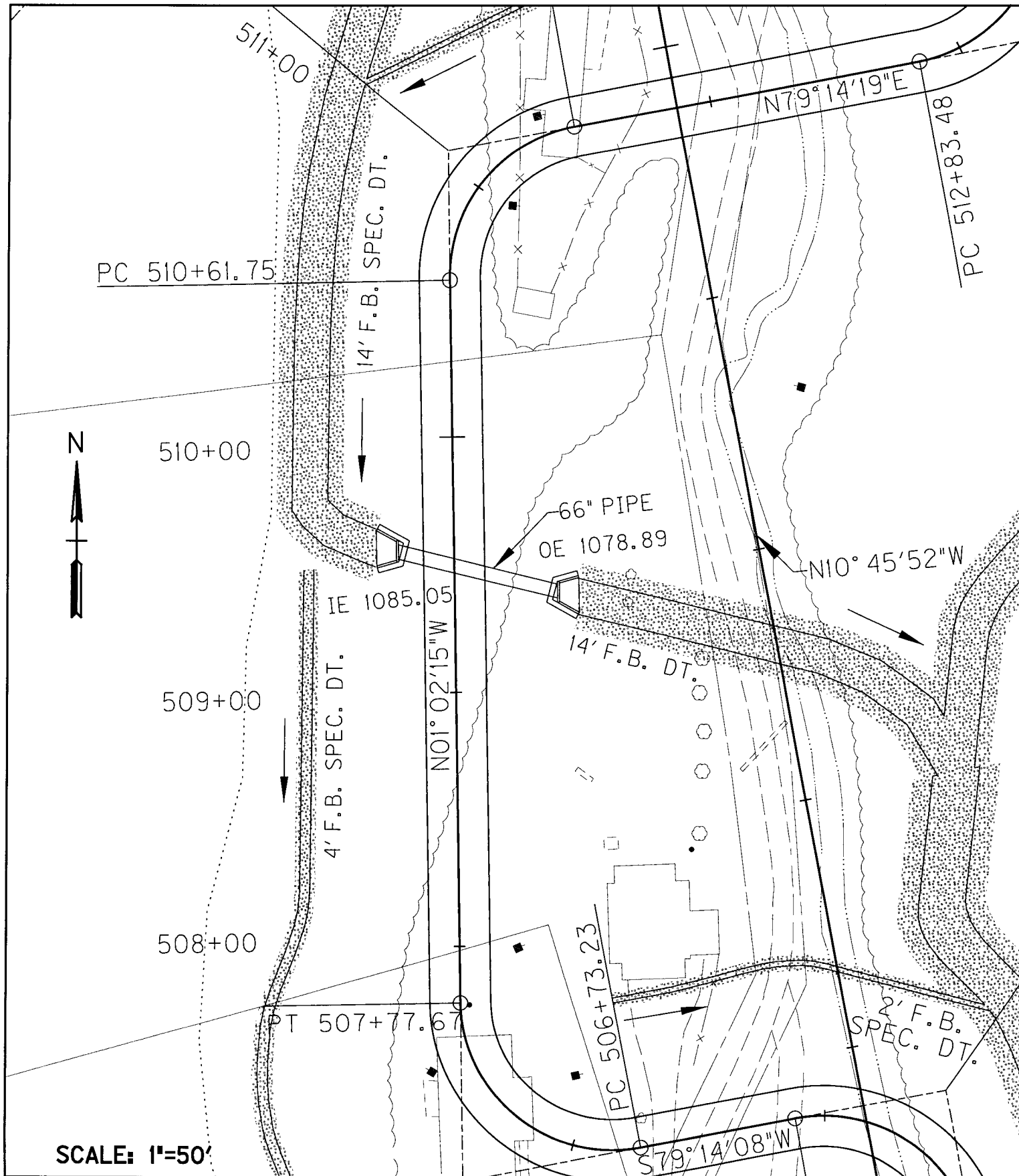
STATE OF:

MILE POINT:

12-263.75
ITEM NO.:

25 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=50'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Stonecoal Fork Road Sta. 509+50 - 66" Pipe Const.

PROPOSED ACTIVITIES:

Stonecoal Fork

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

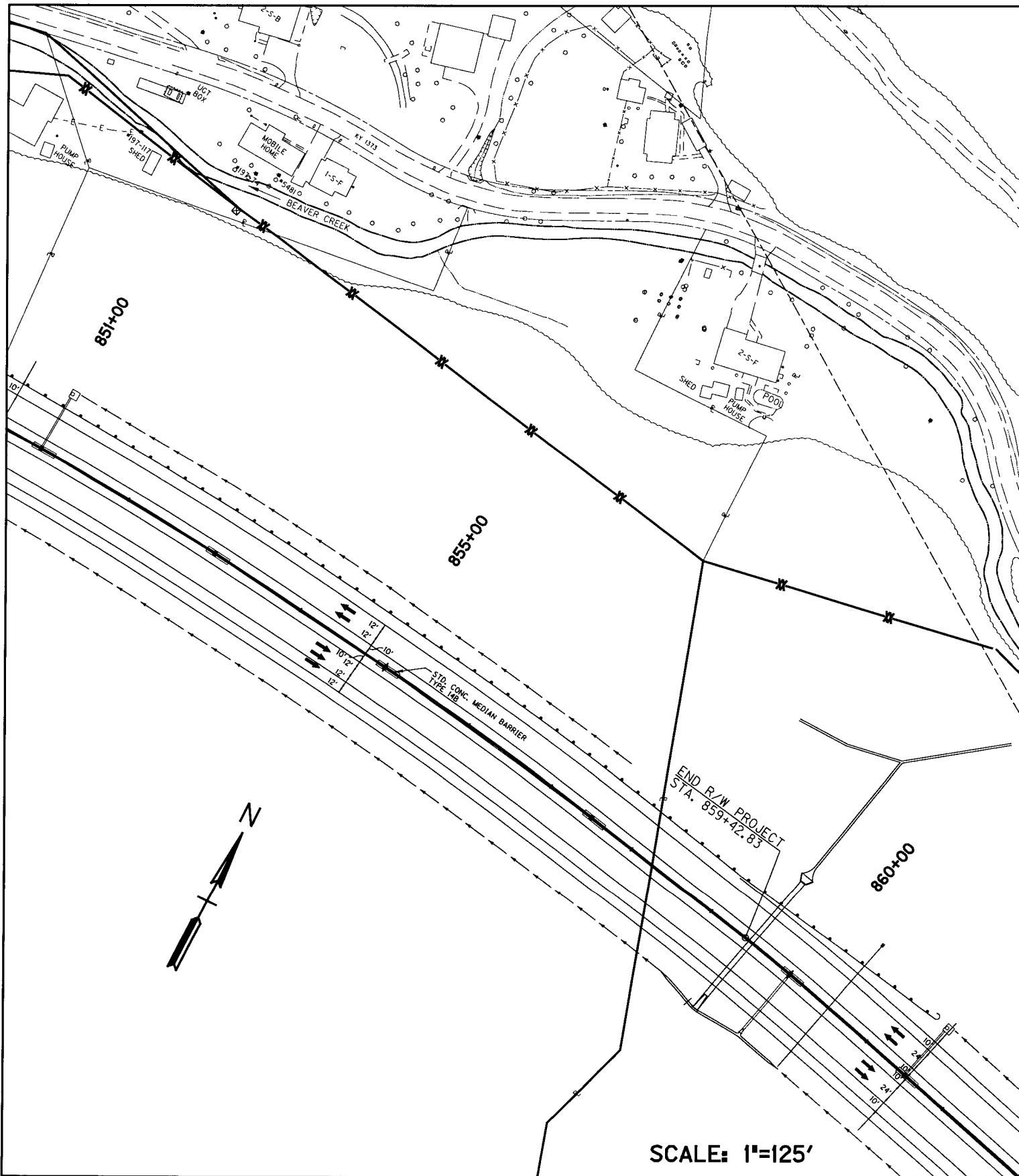
STATE OF:

MILE POINT:

12-263.75
ITEM NO.:

27 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 859+50 - 60" Pipe Const., Section 1 Perennial Impact

PROPOSED ACTIVITIES:

Tributary to Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

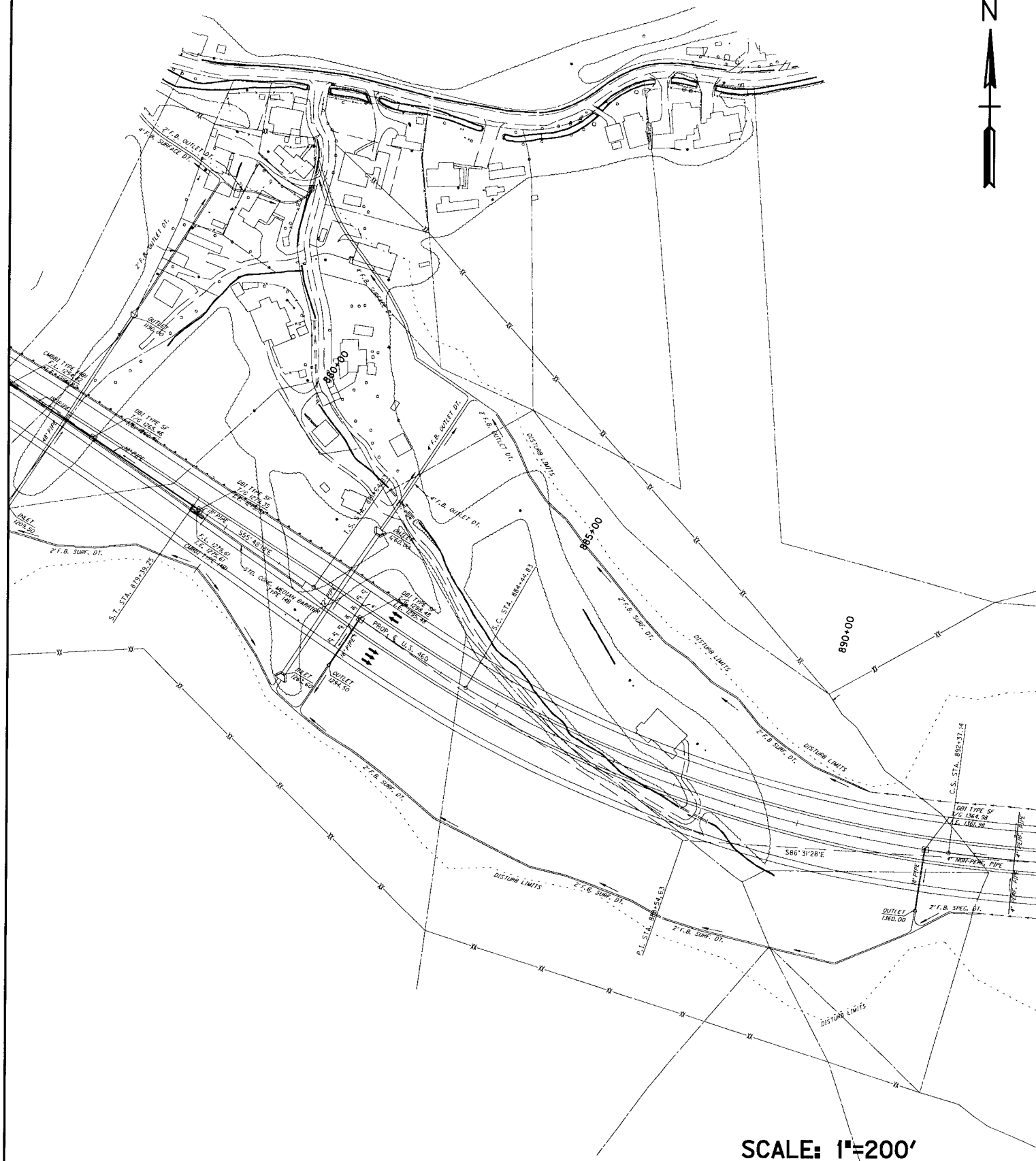
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

29 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=200'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 882+00 - 72" Pipe Const., Diversion of Tributary to
Right Fork of Beaver Creek
PROPOSED ACTIVITIES:

Tributary to Right Fork
of Beaver Creek

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

31 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS**

Diversion of tributary to Wolfpen Branch

PROPOSED ACTIVITIES:

Tributary to Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

STATE OF:

MILE POINT:

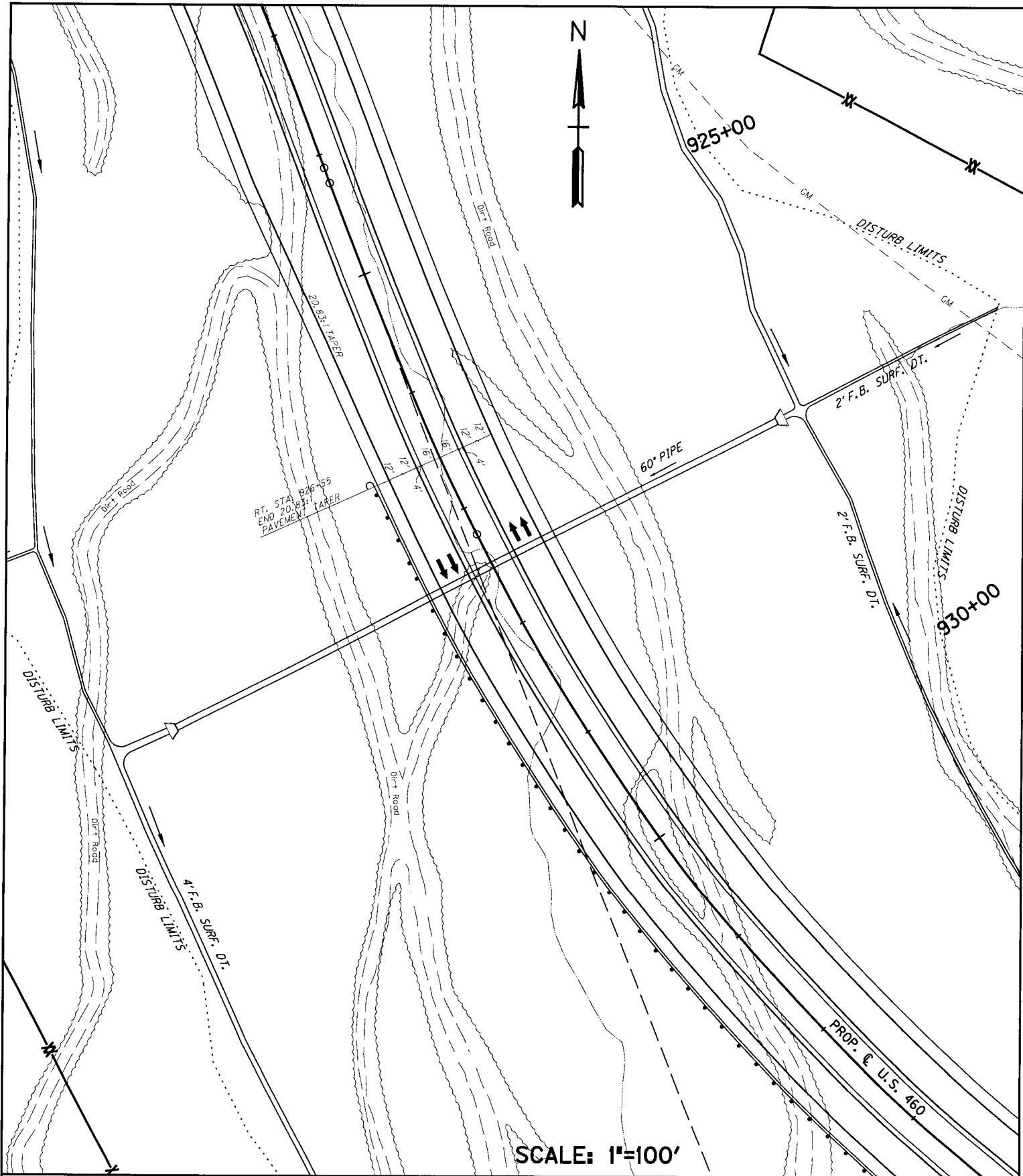
12-263.80

ITEM NO.:

33 OF 48

SHEET NO.

DATE: mo. /yr.



SCALE: 1"=100'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 927+50 - 60" Pipe Const.

PROPOSED ACTIVITIES:

Tributary to Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

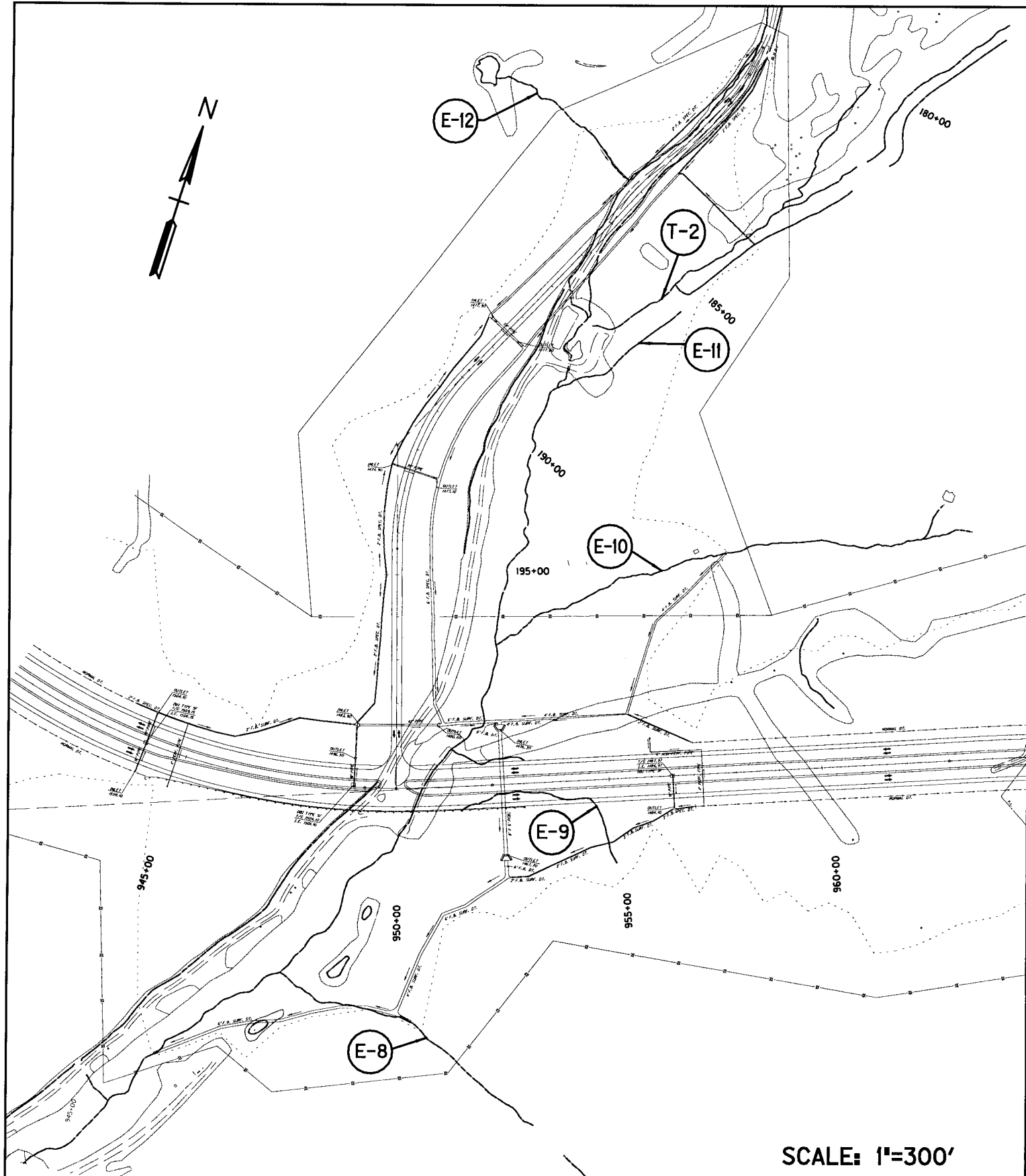
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

34 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=300'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 950+00 Excess Material Site,
Diversion of Wolfpen Branch
PROPOSED ACTIVITIES:

Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

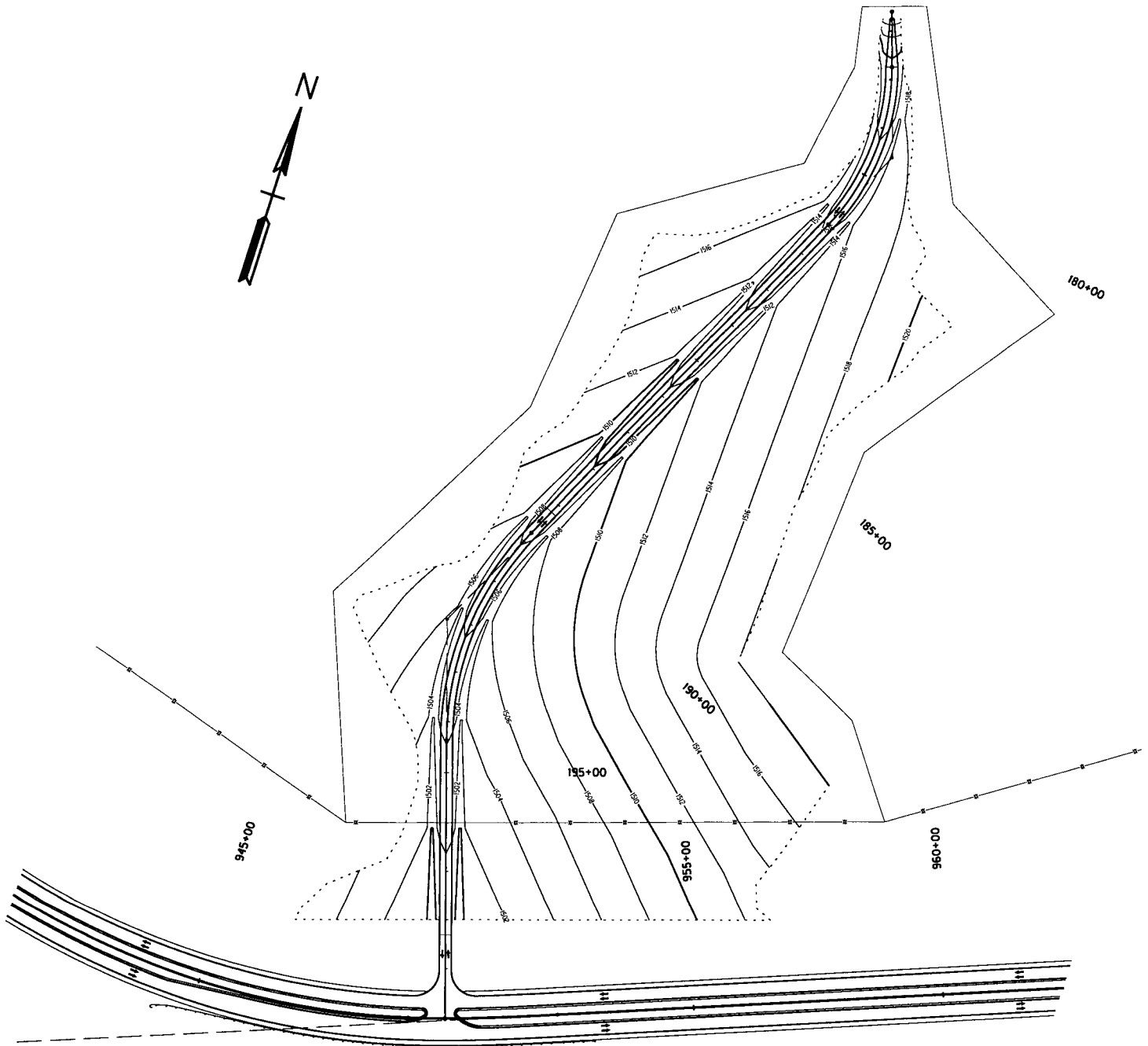
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

36 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=300'

~NOTES~

APPLICATION BY
**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS**

**Diversion of Wolfpen Branch.
Proposed Contours**

PROPOSED ACTIVITIES:

Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

36A OF 48
SHEET NO.

DATE: mo. ____ /yr. ____



187+00
4' F.B. SPEC. DT.
PROP. & HAUL ROAD

188+00

189+00

190+00

54" PIPE

12'

12'

pipe
(REMOVE)

12" Pipe

SCALE: 1"=50'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Mainline Sta. 950+00, Haul Rd. Sta. 188+50 - 54" Pipe Const.

PROPOSED ACTIVITIES:

Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

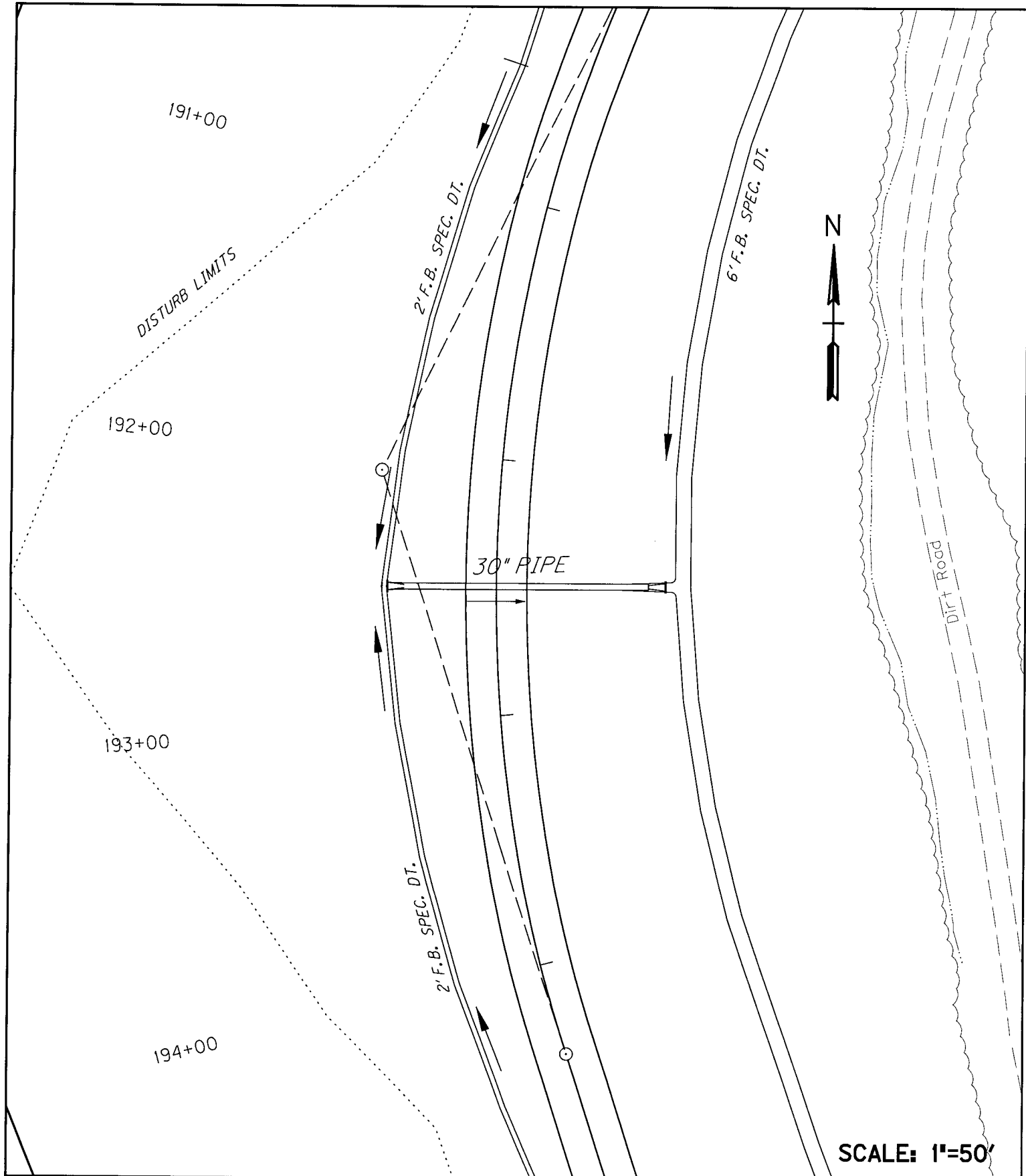
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

37 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Mainline Sta. 950+00, Haul Rd. Sta. 192+50 - 30" Pipe Const.

PROPOSED ACTIVITIES:

Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

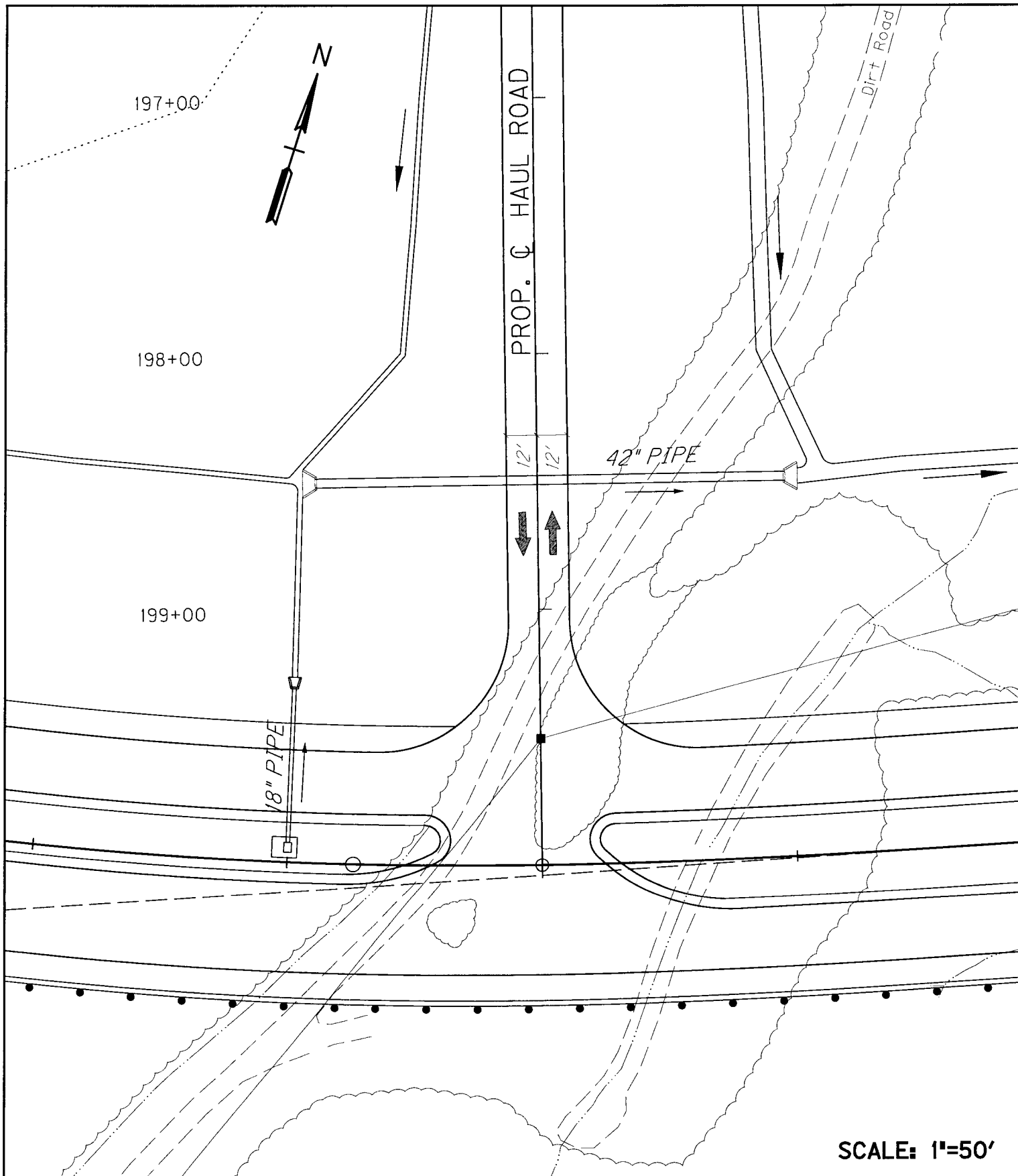
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

39 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=50'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Mainline Sta. 950+00, Haul Rd. Sta. 198+50 - 42" Pipe Const.

PROPOSED ACTIVITIES:

Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

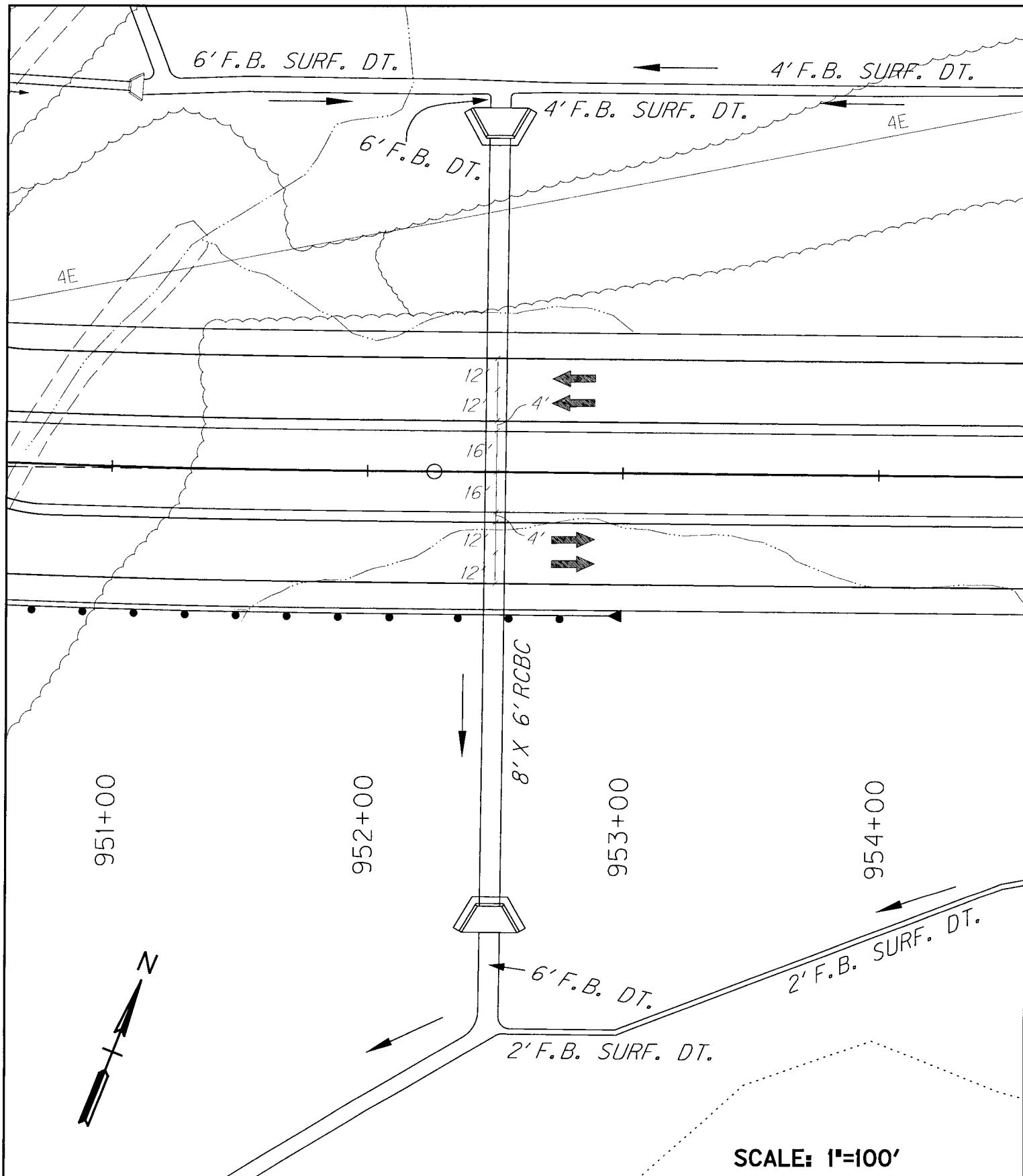
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

41 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 952+50 - 8 x 6' RCBC Const.

PROPOSED ACTIVITIES:

Wolfpen Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

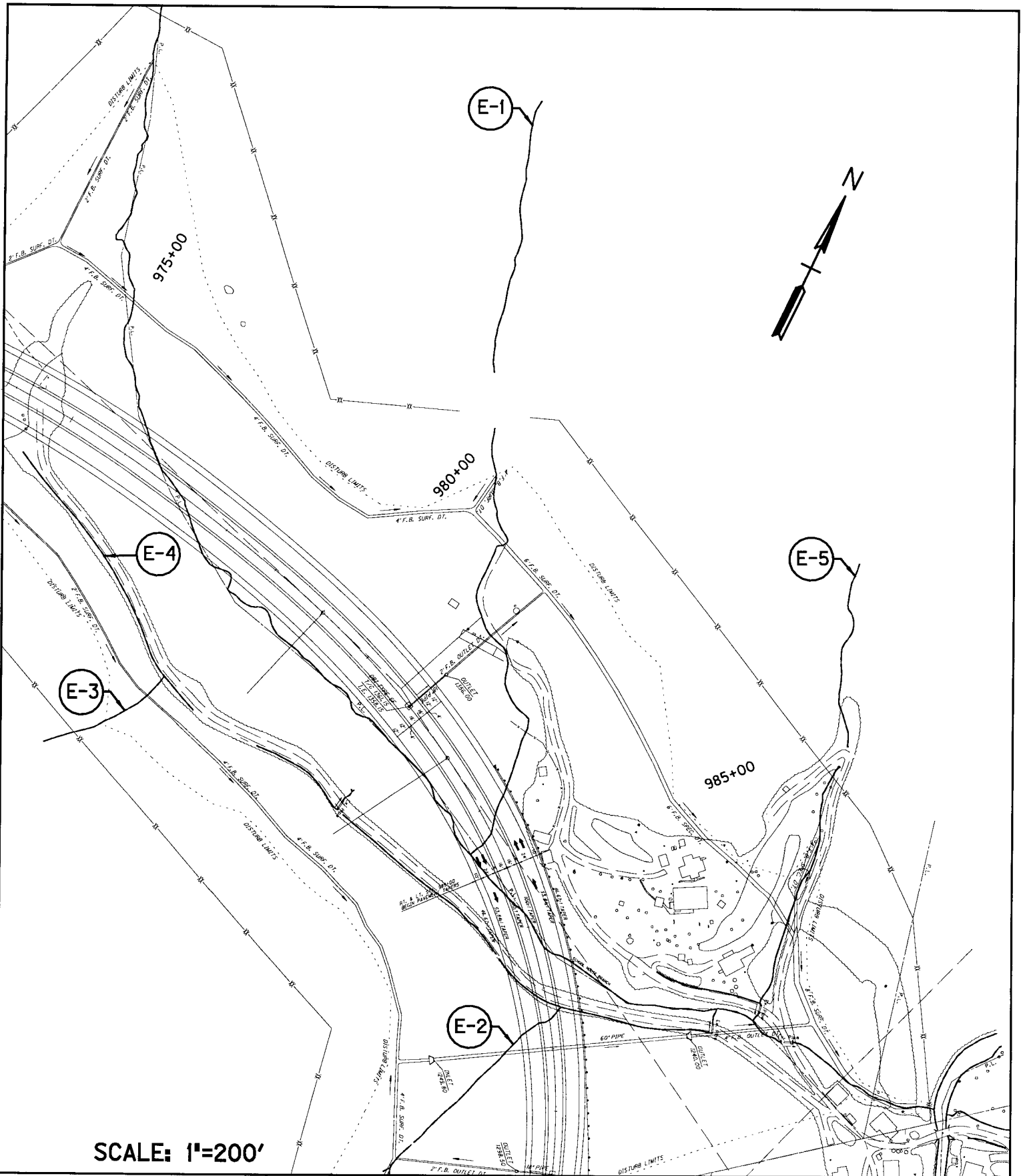
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

43 OF 48
SHEET NO.

DATE: mo. /yr.



SCALE: 1"=200'

~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Diversion of School House Branch

PROPOSED ACTIVITIES:

School House Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

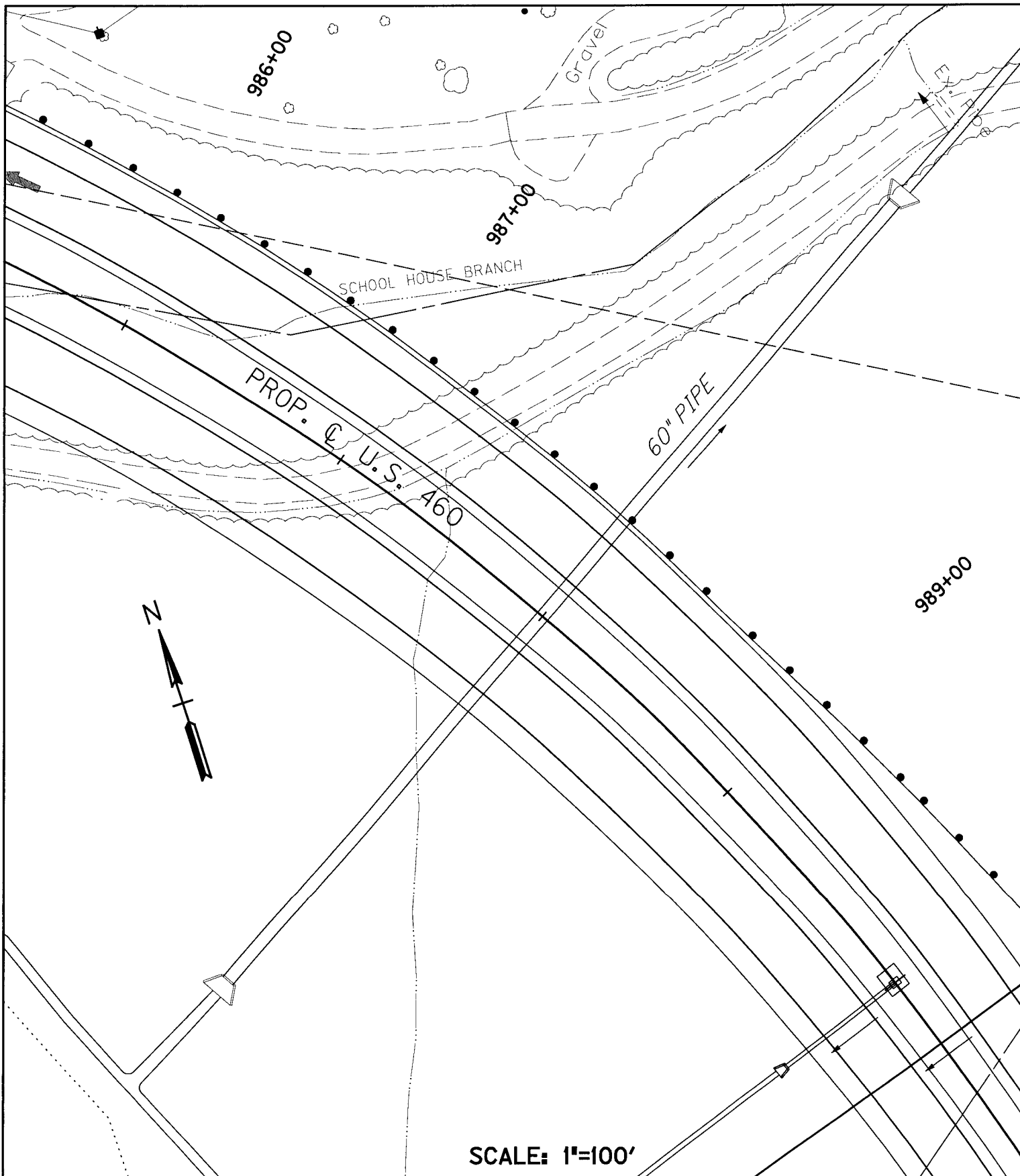
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

45 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 988+00 - 60" Pipe Const.

PROPOSED ACTIVITIES:

School House Branch

STREAM NAME:

AT OR NEAR:

Pike

COUNTY OF:

KENTUCKY

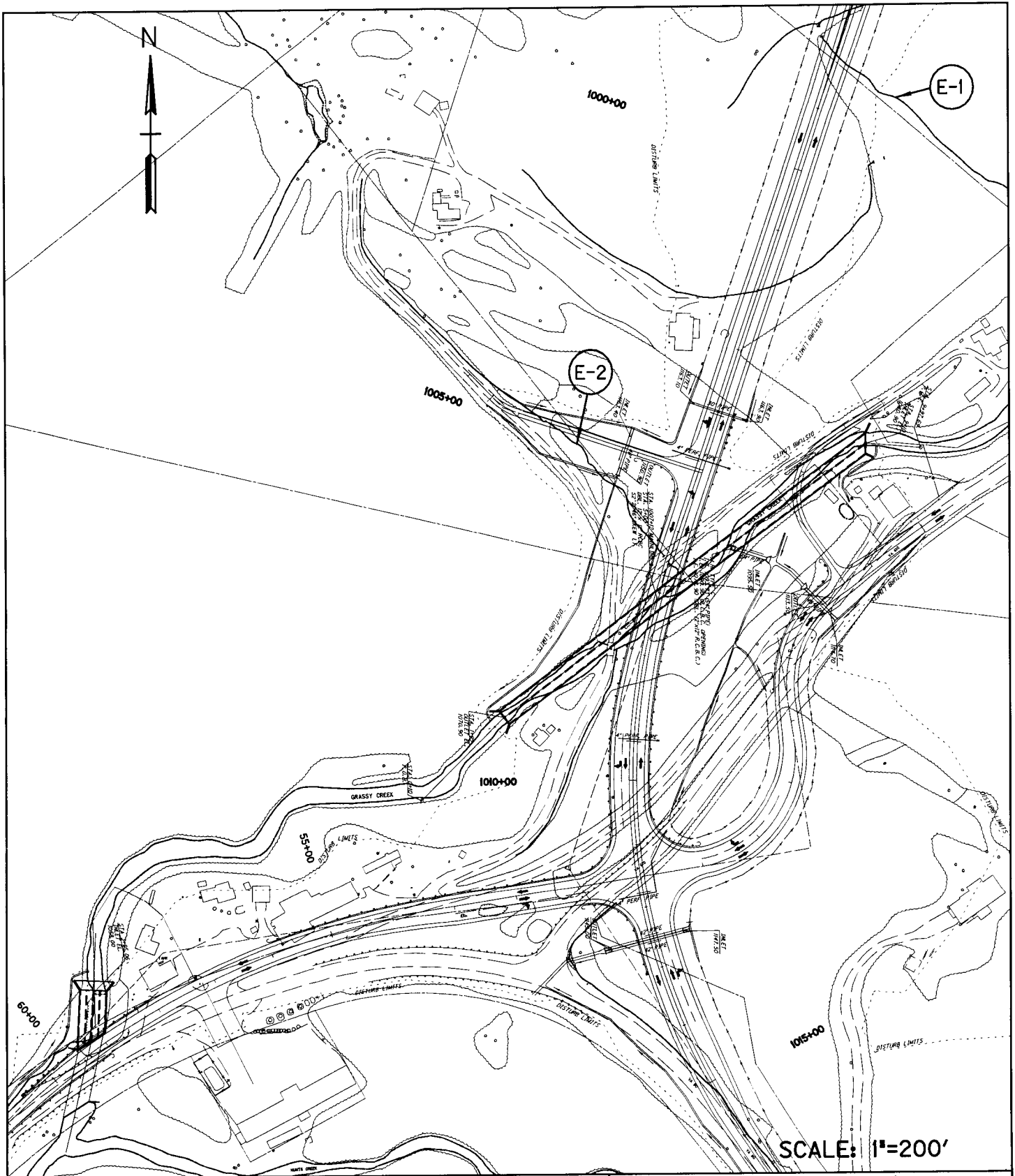
STATE OF:

MILE POINT:

12-263.80
ITEM NO.:

46 OF 48
SHEET NO.

DATE: mo. /yr.



~NOTES~

APPLICATION BY

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF
ENVIRONMENTAL ANALYSIS

Sta. 998+10, fill; Sta. 1005+00, entrance pipe;
Sta. 1007+12, RCBC; VA 80 Sta. 59+34.57, RCBC

PROPOSED ACTIVITIES:

Grassy Creek

STREAM NAME:

AT OR NEAR:

Pike, KY / Buchanan, VA

COUNTY OF:

KENTUCKY/VIRGINIA

STATE OF:

MILE POINT:

12-263.90
ITEM NO.:

48a OF 48
SHEET NO.

DATE: mo. /yr.